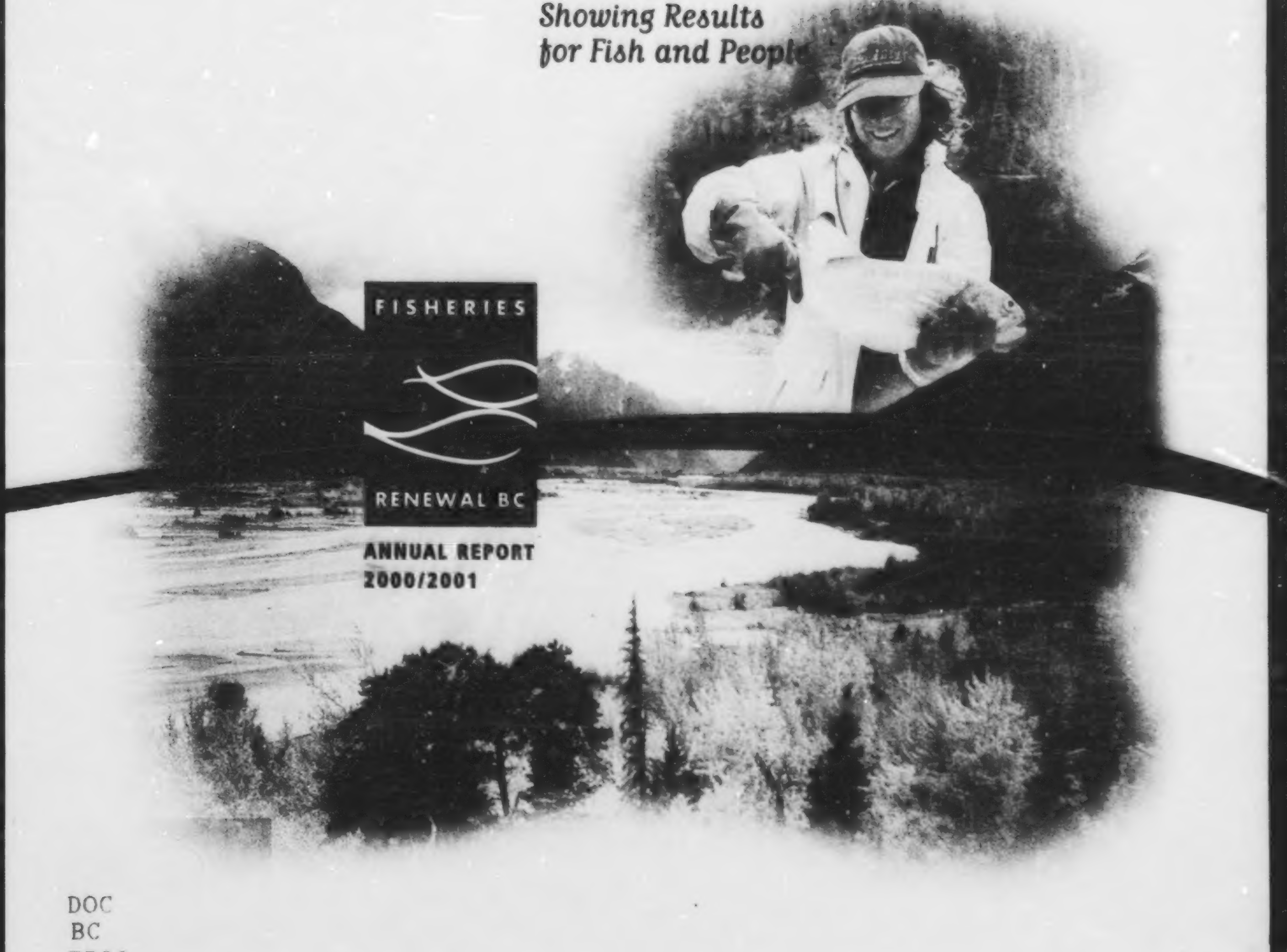
Showing Results
for Fish and People



FISHERIES
RENEWAL BC

ANNUAL REPORT
2000/2001

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Corporate Profile

Fisheries Renewal BC is a strategic investment agency, created by the Fisheries Renewal Act of July 1997. The corporation is an important part of British Columbia's effort to develop and protect a sustainable fishing industry and healthy communities.

FsRBC offers fishing-dependent communities hope and jobs by empowering citizens to become part of the solution in reshaping and revitalizing the resource. While assisting in restoring fish stocks, with the ultimate goal of bringing sustainable employment back to communities, FsRBC is also assisting communities to diversify. FsRBC supports the development of value-added products and other economic initiatives so that the fishing economy is broader based and more strategically placed for the future.

The Crown corporation funds programs in three key investment areas:

- more fish
- new fisheries
- higher value/more work.

In 2000/2001, FsRBC had five investment programs: Salmonid Renewal Program, Development and Diversification Program, Original Renewal Program Ideas, Planning and Partnership Program, Urban Salmon Habitat Program (transferred from the Ministry of Environment, Lands and Parks and BC Fisheries in May 2000).

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Abbreviations

Throughout this Annual Report there are the following abbreviations:

FsRBC – Fisheries Renewal BC
SRP – Salmonid Renewal Program
DDP – Development and Diversification Program
PPP – Planning and Partnership Program
ORPI – Original Renewal Program Ideas
USHP – Urban Salmon Habitat Program

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Mission Statement

*To contribute to
producing more fish,
developing new
fisheries, promoting
higher value for our
fish and creating
more fishery-related
work for generations
to come.*

A special "thank you" to all the FsRBC partners and their photographers who kindly provided many photographs for this report.

Executive summary

Three years ago Fisheries Renewal BC (FsRBC), a new Crown corporation, committed itself to providing "an innovative way for the B.C. government to ensure that the social, cultural and economic benefits of B.C.'s fisheries continue to be shared well into the future." *(Strategic Plan, April 1998 to March 2001,* p.4) By March 31, 2001, it was evident that, while British Columbia's fisheries and fishery-reliant communities were still enduring hard times, FsRBC's programs were making measurable progress towards reaching the corporation's goals.

FsRBC's strategies are, of necessity, long-term. Some salmon stocks will take decades to recover and new fisheries and markets will likewise take years to develop. Commercial fisheries are still learning to adapt to the major restructuring they underwent in the 1990s. Many fisheries remain closed or only open for limited periods. Overseas and domestic markets are flat or growing minimally.

The corporation continues to make well-directed investments that, leveraged with contributions from other private and public sources, have the potential to help specific sectors and local communities rebuild themselves over time. For example, there are new salmon-derived products, utilizing lower reward species such as chum and pink, that have good marketing possibilities.

With fish and fisheries, there are no miracles or instant cures, only patience; all depends on nature's cycles and the gradual development of new processing opportunities and markets. Fish-related businesses will only attract new investments when there are clear indications of sustainable fish resources and strong market potential.

The three main long-term objectives that FsRBC set itself in 1998 were stock restoration, new fishery-related jobs and new market opportunities. As this report shows, there are now positive trends in each of these areas:

1. Fish stocks are recovering, salmon are starting to return in larger numbers and the restoration of fish habitat is progressing.
2. New fisheries are creating new job opportunities, traditional fisheries are stabilizing and fishery workers are learning new skills that will assist in creating year-round employment opportunities.
3. FsRBC is supporting the development of new products and new markets for the benefit of all fishery-related businesses as well as exploring ways of expanding B.C.'s penetration into established markets.

Messages *(pages 6-7)*

Both the Chair, Joy Thorkelson, and the Chief Executive Officer, Paul Kariya, express a cautious optimism. Ms Thorkelson ascribes FsRBC's progress to the corporation's extensive and deep links with communities and community groups as well as its accountability and openness to British Columbians. Mr Kariya is heartened by the positive impact that many FsRBC programs are having on local economies and by the corporation's success in bringing so many diverse groups together in a cooperative spirit to improve the fishery.

In November 2000, FsRBC sponsored a conference on the collapse of the sockeye runs around Rivers Inlet. While there is no indication that this fishery will recover in the foreseeable future, the conference participants, some of whom are quoted here, agreed on the need for continuing consultation, cooperation and research.

Fish habitat

In 2000/2001, the **Salmonid Renewal Program** (SRP)(pages 9-59) contributed $10,082,321 to 486 projects that were worth a total of $15,664,363. This work created 2771 jobs and 4300 British Columbians volunteered their time to help complete these projects.

Twenty-two partnership groups undertook salmonid renewal projects. They provide the direction, the energy and the all-important local input which has made this program so successful. Within these groups there are hundreds of participating organizations who propose individual projects. These groups worked on 163 habitat restoration projects in 2000/2001 which provided an additional 296 kilometres of fish spawning and rearing areas.

This section contains over 50 individual stories and descriptions of these projects showing how individuals and grassroots organizations are contributing to renewed fisheries in British Columbia.

In June 2000, at the direction of the Minister, FsRBC took over responsibility for administering the **Urban Salmon Habitat Program** (pages 76-77) which provides grants to Georgia Basin municipalities and community groups.

Economic programs *(pages 60-75)*

For the year 2000/2001, FsRBC's economic programs were delivered through three programs whose aim is to expand business activity and job creation in all fishery-related sectors. Last year the **Development and Diversification Program** (DDP) provided $1.7 million to 31 projects, most going to shellfish aquaculture and marketing initiatives. Other sources invested a total of $5.9 million in these projects. The **Planning and Partnership Program** (PPP) funded 37 projects that brought together groups and individuals with an interest in fisheries of various kinds. **Original Renewal Program Ideas** (ORPI) invested $1.5 million in 8 projects.

> ***We were skeptical this would work when we started. But so many diverse people have come together who've never worked with each other before. It's been a very positive experience for us all.***
>
> ***Fisheries Renewal has made itself accountable. The audit program in the field has been comprehensive and the results have been a comfort to both the board and the staff. The audits have been positive and showed us which areas to look at. We find out quickly what's not working because we don't want to make too many mistakes.***
>
> John Holdstock, C.A.,
> KELOWNA RESIDENT
> DIRECTOR, FISHERIES RENEWAL BC
> PAST PRESIDENT, BC WILDLIFE FEDERATION

Financial report

For the fiscal year 2000/2001, FsRBC received $15.1 million in funding from three provincial sources:

- Consolidated Revenue Fund - $7.5 million
- Forest Renewal BC - $5.5 million
- BC Hydro - $2.1 million.

In addition, FsRBC's investments earned $0.7 million. These funds allowed FsRBC to invest in programs at a level similar to 1999/2000.

FsRBC continues to work towards revitalizing the fishery resource at a time when fish stock recovery continues to be mixed and major restructuring is happening in the industry. The Job Protection Commission estimated that 12,000 jobs disappeared between 1996 and 1999.

FsRBC has a significant and long-term role in responding to the instability and volatile economic state of the fishing industry. It takes many years to rebuild fish stocks and habitat and harvest the rewards. Seafood production and marketing in a new global economy present continuing challenges.

A long-term source of ongoing funds is necessary to achieve FsRBC's goals. The corporation continues to have concerns about its ability to fund programs and is seeking a level of funding that is commensurate with the need to implement its plan and achieve its mandated goals.

Report on the Performance Plan

FsRBC's *Strategic Plan, April 1998 to March 2001* outlined the work and activities needed to begin the long-term restoration of British Columbia's fisheries.

FISHERIES RENEWAL BC THREE – YEAR PERFORMANCE

	1998/1999	1999/2000	2000/2001	3-Year Total
Total direct investment ($million)	9.3	13.9	13.6	36.8
Job creation contributions (estimated)	1631	2879	3014	7524
Salmonid Renewal Program projects	232	453	486	1171
Development and Diversification Program projects	30	48	31	109
Original Renewal Program Ideas projects	15	13	8	36
Planning and Partnership Program projects	37	26	37	100
Juvenile salmonids released (million)	9.8	28.5	36.2	74.5
Habitat restored (kilometres)	53	224	296	573
Stock and aquatic habitat assessed (kilometres)	1027	2917	4023	7967
Training opportunities in SRP	207	792	1363	2362
Volunteer days in SRP	2495	14,284	15,004	31,783
Number of SRP workers from First Nations	333	572	671	1576

While assisting in restoring fish stocks, with the ultimate goal of bringing sustainable employment back to communities, we also set out to help communities diversify: more fish, new fisheries, more work/higher value.

Over the past three years, each year we've made significant strides, either meeting or exceeding our goals.

Performance Measurements

FsRBC has four accounts to measure the corporation's performance. They also enable FsRBC to report how effectively it is moving towards achieving its mandated goals.

The four accounts are:
- Environmental Account - aspects of performance such as fish production and habitat restoration
- Economic Account - effectiveness in stimulating economic development and providing sustainable jobs
- Planning and Partnership Account - effectiveness of groups and their capacity to deliver FsRBC programs
- Financial Account - expenditure of funds, cost effectiveness and efficiency.

In 2000/2001 the Office of the Auditor General of B.C., performed a review of the DDP, PPP and ORPI programs to determine that these programs are working as intended and project expenditures are accurately being reported to FsRBC. FsRBC also retains independent auditors to ensure that it is delivering its programs effectively and efficiently. The audits confirm the program delivery model works and that funded projects are contributing to returns in the corporation's key investment areas.

CORPORATE GOVERNANCE PRACTICES

FsRBC is governed by a Board of Directors comprised of 12 Cabinet-appointed members, representing community, First Nations and fisheries sector groups from the Interior and the Coast of British Columbia. The corporation is accountable to the Minister of Fisheries and the Cabinet. The FsRBC Board's corporate powers include the ability:
- to use funds on Crown, private or First Nations lands
- to acquire, hold and dispose of personal property
- to borrow money, with the approval of the Lieutenant-Governor in Council
- to issue loans
- to issue grants and contracts
- to enter into agreements to deliver fisheries-related programs with First Nations, local, provincial and federal government agencies and third parties, including companies, sector associations and other non-government organizations
- to enter into agreements other than program delivery, with the federal or provincial governments or First Nations, and establish advisory committees.

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Message from the Chair

Joy Thorkelson
CHAIR

On behalf of the Fisheries Renewal BC board I am pleased to present our fourth annual report.

When we started in 1997, the fisheries were in a state of crisis. After community discussions, we developed four goals – more fish, new fisheries, more work and higher values for fish products.

We tied our actions to positive and productive principles:

- partnerships with community groups
- cooperation and consultation with all involved with fish and in fishing
- community-driven projects
- accountability and openness to British Columbians.

Our approach has encouraged thousands of British Columbians to come forward with ideas for restoring fish habitat, for new fish products, for ways of restoring economic growth to communities.

We're starting to see results. FsRBC investments in habitat renewal projects are rebuilding fish stocks. New products, such as tilapia fish, mussels and other shellfish, are starting to find acceptance in the marketplace and to provide jobs.

Seafood products are British Columbia's number one food export. But the nature of the marketplace is changing. Consumers around the world are starting to demand that the seafood products they buy are from sustainable fisheries. FsRBC strongly supports the idea of sustainable fisheries and has invested in the development of selective harvesting tools and in new fisheries' stock assessment research.

The connections that FsRBC has built up over the past four years with communities throughout B.C. are extraordinary. Throughout this report are stories of volunteers, groups and communities working to identify, protect and restore salmon habitat. We are also working well with government agencies at all levels. For example, in 2000/2001 we cooperated with Fisheries and Oceans Canada on several selective fishing workshops and on hundreds of fish habitat projects.

While saltwater fisheries are the responsibility of Fisheries and Oceans Canada, the economic well-being of fish-dependent communities, businesses and individuals is a provincial and FsRBC concern. Many people who are concerned about their livelihoods and futures are asking that FsRBC and the Province become more involved in managing the saltwater fishery. Cooperation is important because, in a complicated environment, fish can be affected by decisions made by other government departments and agencies.

Fish stocks are growing again, fisheries are reviving and fish habitats are improving. We're proud of all that Fisheries Renewal's board and staff have accomplished. In working together, we are succeeding together.

Message from the Chief Executive Officer

This is Fisheries Renewal BC's fourth year. Salmon that were born at the same time as us are now returning from the ocean. Because of our activities many rivers and streams contain new habitats for these salmon to spawn in and improved waters for juvenile salmon to grow in.

We have an equally important role in helping to sustain other fish species, to revitalize fisheries, to develop new seafood products and to encourage the creation of new fishery-related businesses and jobs.

Since 1998, Fisheries Renewal BC has invested $37 million in fishery-related activities in British Columbia's communities. In the process we have helped in the following activities that are crucial for the health of fish stocks and fisheries:

- the creation of 7500 jobs
- the release of 74 million juvenile salmonids
- the assessment of 4000 kilometres of fish habitats in watercourses
- the restoration of 575 kilometres of stream habitat
- the development of 10 new value-added products
- the piloting of 5 new fisheries
- ecotourism and seafood marketing initiatives.

Paul Kariya
CHIEF EXECUTIVE OFFICER

Four years ago the commercial salmon fishery, coastal communities and First Nations were devastated from the impact of numerous closures. They are recovering and the future fishery will be very different – fishing selectively, harvesting new species, new aquaculture industries and expanding shellfish cultivation.

Hundreds of thousands of recreational fishing tourists come to B.C. every year. More than 300,000 British Columbians have fishing licences. FsRBC is working to ensure that anglers will continue to enjoy their sport by helping local groups restore and maintain freshwater fish habitat.

As a corporation we are accountable for all our actions. The Office of the Auditor General of British Columbia audits our financial statements and reviews a sample of the projects we invest in. To date these audits have approved of our performance.

Fisheries Renewal BC has become a vehicle for bringing cohesion to what has often been a fractious industry. This consolidation of interests is unprecedented and, most critically, it has enabled Fisheries Renewal BC to be effective.

FsRBC's investments are helping to grow an industry that was in danger of shrinking four years ago. Traditional fisheries are changing and new fisheries are coming along; both will be major contributors to community economies, to job growth and to the province's expanding food sector. FsRBC is also encouraging industry associations to explore new markets and maintain existing ones in the face of international competition. All in all, there are many reasons for feeling optimistic about the future of British Columbia's fisheries.

The crisis in the Rivers Inlet fishery

The collapse of the sockeye salmon fishery in Rivers Inlet has been repeated on a lesser scale in hundreds of streams and lakes. On November 6, 2000 Fisheries Renewal BC sponsored a conference on the Rivers Inlet fishery bringing together participants from federal and provincial government agencies, from First Nations and from commercial and recreational fishing. To put the Rivers Inlet disaster into perspective: from 1884 to 1974 fishers caught one million sockeye annually but, in 1999, only 3600 sockeye returned to spawn. To aid the recovery of this fishery, FsRBC has invested more than $800,000 in almost 30 projects since 1998. Quoted below are the opinions and statements of some conference contributors.

Wannock River fishwheel in operation, Rivers Inlet, summer 2000. See pages 46-47.

Fishing boats moored at the McTavish cannery wharf, Rivers Inlet. Date unknown. (BC Archives #H-06508)

We want to be able to work together to save that fish. Because it's not just a fish problem, it's a people problem.

Chief John Henderson, CAMPBELL RIVER INDIAN BAND

...I have not been able to find any specific practice that I believe has caused the decline in this case. ...I believe this is a natural phenomenon.

Dr Chris Wood, FISHERIES SCIENTIST, FISHERIES AND OCEANS CANADA

I don't believe [the collapse of the Rivers Inlet fishery] is a natural phenomenon, sorry to say. The one reason I say that is because it was predicted, [as far back as] 1958. How could these people predict things that are natural phenomena?

Nikki Shaw, FISHERIES DEPARTMENT, OWEEKENO FIRST NATION

John Fraser, Chair, Pacific Fisheries Resource Conservation Council.

If you take the total amount of money...that the fishery generated, it's extraordinary. And it ranks up there with any other resource industry.

The Honourable John Fraser, CHAIR, PACIFIC FISHERIES RESOURCE CONSERVATION COUNCIL

Salmonid Renewal Program Partnership Groups

1. Bulkley Morice Salmonid Preservation Group (page 12)
2. Cariboo Chilcotin Fish Enhancement Society (page 14)
3. Central Coast Partnership Group (page 16)
4. Central Island Fisheries Renewal Partnership (page 18)
5. Columbia-Kootenay Fisheries Renewal Partnership (page 20)
6. Combined North Island Fisheries Centre (page 22)
7. Comox-Strathcona Fisheries Renewal Partnership (page 24)
8. Cowichan Fish and Habitat Renewal Board (page 26)
9. Fraser Cariboo Watersheds Partnership*
10. Fraser Valley Regional Watersheds Coalition (page 28)
11. Haida Gwaii Marine Resources Group Society (page 30)
12. Lower Mainland Regional Delivery Partner Group (page 32)
13. North Coast Fisheries Renewal Council (page 36)
14. Northwest Stewardship Society (page 38)
15. Nuu-chah-nulth/West Coast Vancouver Island Regional Aquatic Management Society (page 40)
16. Okanagan-Similkameen-Boundary Fisheries Partnership (page 42)
17. Peace-Liard Watersheds Council*
18. Rivers Inlet Fisheries Renewal Partnership Group (page 46)
19. South Islands Aquatic Stewardship Society (page 48)
20. Squamish/Lillooet Rivers Watershed Partnership Group (page 50)
21. Sunshine Coast Salmonid Renewal Partnership (page 52)
22. Taku and Atlin Area Community Fisheries Working Group (page 54)
23. Thompson Basin Fisheries Council (page 56)
24. Upper Fraser and Nechako Fisheries Council (page 58)

*ESTABLISHED AFTER MARCH 31, 2001
BOUNDARIES SHOWN ARE APPROXIMATE.

Salmonid Renewal Program

> *The Fisheries Renewal board comes from many different walks of life—tourism, sports fishing, business, First Nations, unions, environmentalism. What's great is that we all sit down and we put aside our personal and company issues to deal with the betterment of fish. Fish and fish habitat take precedence over everything else.*
>
> Christopher Cook Jr.,
> DIRECTOR, FISHERIES RENEWAL BC
> PRESIDENT, NATIVE BROTHERHOOD OF BRITISH COLUMBIA
> COMMERCIAL FISHER

The Salmonid Renewal Program (SRP) is at the heart of all Fisheries Renewal BC's investments, for without enough fish there can be no fishing—and without fishing there can be no Aboriginal food, commercial or recreational fisheries. All SRP projects increase the opportunities for sea-going and freshwater fish to spawn, grow and mature.

In this section are more than 50 stories about dedicated streamkeepers, volunteers, property owners and fishery workers who know that boosting the numbers of stock is good for fish, for people and for British Columbia's economy.

Some projects involve building or restoring spawning and rearing habitat for fish, others educate the public about the importance of caring for streams and seashores, and yet others map and survey streams to find out which are fish-bearing and in need of extra protection.

In 2000/2001 FsRBC worked with 22 Partnership Groups around British Columbia to invest in 486 projects. These locally based partnership groups represent the complete spectrum of people and organizations involved in the fisheries, fish habitat and watershed protection. Among them are First Nations, forestry companies, environmental groups, ranchers, local and senior governments, recreational and commercial fishers.

Getting their feet wet and their hands dirty are thousands of volunteers, both young and old, who give their spare time to work on behalf of fish. Without their valuable contributions, many of these projects would not have happened.

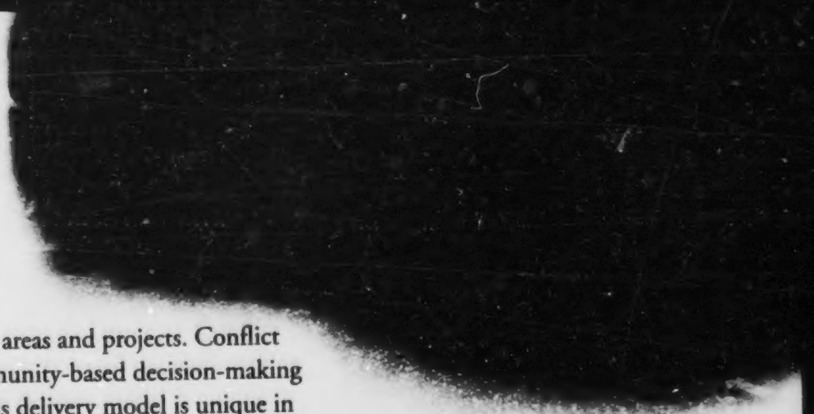
Typical SRP activities

SRP projects include the following undertakings:

- fish inventory and habitat mapping
- fish habitat restoration
- stock/habitat assessment
- stewardship and community planning
- stock enhancement
- education and public awareness
- monitoring and evaluation.

Project selection

The Salmonid Renewal Program is delivered through a province-wide network of regional partnership groups. Partnership groups gather, assess and select proposals for projects brought forward by local organizations. The administrative partner for each group is responsible for distributing the funds, monitoring and auditing the projects and reporting the results. Using local knowledge, technical input from Fisheries and Oceans Canada and the Ministry of Environment, Lands and Parks and a growing database of information, these



Kaien Island Alternate School students surveying human impacts on riparian habitat along First Creek in Prince Rupert.

regional partnerships can direct funds to priority areas and projects. Conflict of interest guidelines, selection criteria and community-based decision-making all add to the accountability of this program. This delivery model is unique in Canada; three successive audits have attested to its effectiveness. Our approach is an award-winning one. Fisheries Renewal BC was 1 of 7 finalists' and the only finalist from B.C., from a field of 108 national entrants in the annual Institute for Public Administration of Canada Award for Innovative Management for our Salmonid Renewal Program.

Fisheries Renewal BC allocates funds across the province based on the following criteria:

- the extent to which fish stocks are at risk of extinction regionally
- the extent of forestry impacts on fish habitat
- the extent of impacts from other land-use practices on fish habitat
- the extent of economic impacts on fisheries-dependent communities
- the potential for stock interceptions by foreign fisheries
- the extent to which knowledge gaps exist regarding fish and fish habitat
- the extent to which other funding sources are available
- the Partnership Group's capacity to deliver
- the extent of geographic area covered by the Partnership Group
- the Partnership Group's performance and track record.

SALMONID RENEWAL PROGRAM PERFORMANCE MEASUREMENTS, 2000/2001

ENVIRONMENTAL ACCOUNT – TOTAL PROJECTS 486	
Other	26
Stewardship & Community Planning	35
Inventory & Mapping	59
Stock/Habitat Assessment	98
Stock Enhancement	38
Education & Public Awareness	67
Habitat Restoration	163
FINANCIAL ACCOUNT	
Fisheries Renewal BC Approved Investments ($)	10,082,321*
Other Investments ($)	5,582,042
Total Investments ($)	15,664,363
In-Kind Contributions (estimated $)	5,971,22
ECONOMIC DEVELOPMENT ACCOUNT	
Jobs Created – #/person-days	2771/56,352
Volunteer Contribution – days	15,004
EMPLOYMENT EQUITY ACCOUNT	
Fisheries Workers	671
Youth	418
Women	668
Aboriginal Persons	671

*includes $912,513 imposed restrictions

Bulkley Morice Salmonid Preservation Group

Houston

Community Futures Development Corporation of Nadina

ADMINISTRATIVE PARTNER

Partners

- Chicago Creek Community Environmental Enhancement Society
- Upper Bulkley River Roundtable
- Toboggan Creek Salmon and Steelhead Enhancement Society
- Wet'suwet'en First Nation
- Office of the Wet'suwet'en
- Steelhead Society of BC-Bulkley Valley Branch
- Community Futures Development Corporation of Nadina
- BC Federation of Flyfishers
- BC Wildlife Federation-Northwest Region
- Drift Fisher Federation of BC
- Pleasant Valley Anglers Society
- Northwest Institute for Bioregional Research

Glacier Gulch cattle access before salmonid protection work.

Projects

ENVIRONMENTAL ACCOUNT .... **TOTAL 23**

INVENTORY & MAPPING 1

Salmonid Habitat Sensitivity Mapping

STOCK/HABITAT ASSESSMENT 8

- Mission Creek Coho Fence
- Toboggan Creek Resistivity Counter
- Bulkley River Overwintering Watershed Study 2000-2001.
- Steelhead Enumeration Study
- Over-Wintering Habitat Visual Reconnaissance Study
- Bulkley Watershed Coho Summary Report
- Buck Creek Fry Emigration Study
- Bulkley/Morice Steelhead Assessment 2000/2001

STOCK ENHANCEMENT 1

Chicago Creek Hatchery

HABITAT RESTORATION 4

- Bulkley Valley CGV Riparian Management*
- Toboggan Creek/Kathlyn Creek Coho Habitat Improvement
- Waterfall Creek Enhancement Project
- Station/Waterfall Creek Stream Rehabilitation Survey

EDUCATION & PUBLIC AWARENESS 3

- Bulkley-Morice Watershed Library*
- Working Around Water Fact Sheet
- Development of Fisheries Field Technician Certificate Program

STEWARDSHIP & COMMUNITY PLANNING .. 1

IBI Sampling Equipment

OTHER 5

- 2000 Upper Skeena River Creel Survey
- Toboggan Creek Groundwater Monitoring
- Upper Bulkley River Staff Gauge Monitoring Program
- Addendum to the Nutrients and Algae in the Upper Bulkley Watershed 97-2000
- Bulkley-Morice Watershed Library Operations 2000/2001

*indicates projects profiled on opposite page

FINANCIAL ACCOUNT	
Fisheries Renewal BC Approved Investments ($)	432,732
Other Investments ($)	64,039
Total Investments ($)	496,771
In-Kind Contributions (estimated $)	202,785
ECONOMIC DEVELOPMENT ACCOUNT	
Jobs Created – #/person-days	128/2416
Volunteer Contribution – days	845
EMPLOYMENT EQUITY ACCOUNT	
Fisheries Workers	14
Youth	11
Women	35
Aboriginal Persons	27

Creating a public information resource centre

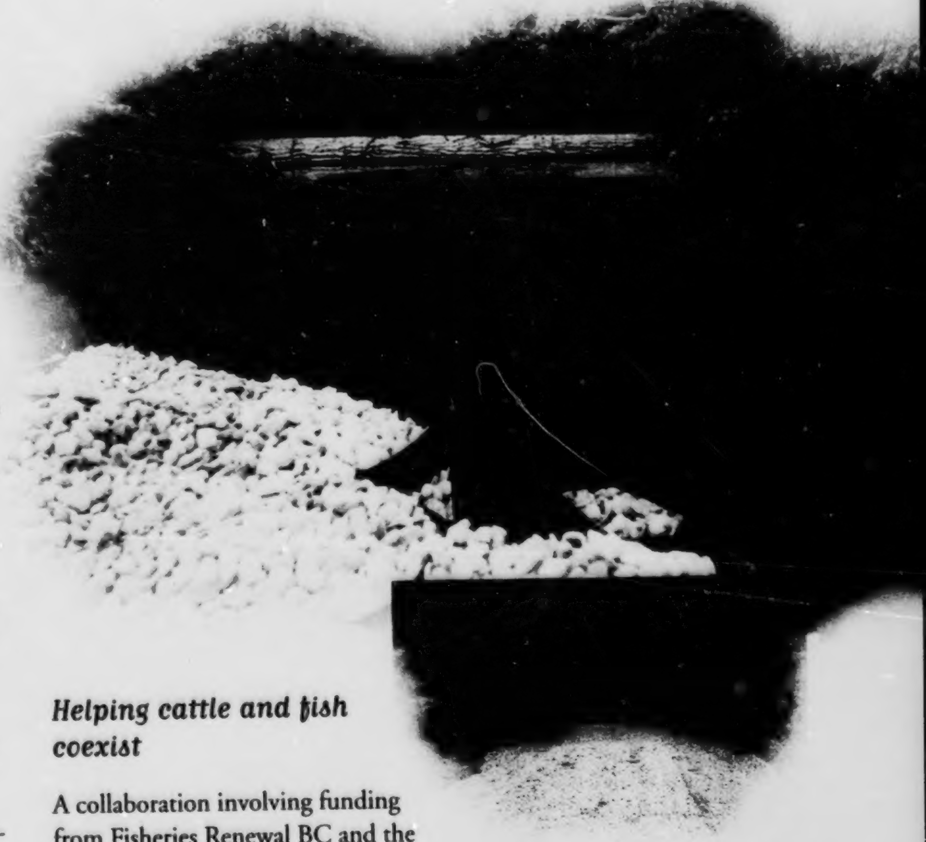
Too often valuable reports and data on environmental issues are filed away in offices and storerooms that are inaccessible to the public. To make sure that this won't happen to the wealth of information collected about the Bulkley-Morice Watershed, the Community Futures Development Corporation of Nadina (CFDCN) established a public library.

Located in the organization's offices over Houston's shopping mall, the library has a mass of information on fish, land use planning, agriculture and forestry. While the library's main focus is the Bulkley and Morice watersheds, it also has a large collection of provincewide and general resource management information. Library users have access to more than 600 reports, texts, guides, periodicals and abstracts, along with 23 videos and over 100 maps and air photos. Other offerings include Internet access and free stewardship brochures.

"We are working hard to raise awareness of our library and letting local communities know about our excellent resources," says Greg Tamblyn, CFDCN's Watershed Stewardship Coordinator. "Through a partnership with Northwest Community College in Smithers our database will be searchable from the Internet. Having our resources listed on-line will increase our profile and attract clients."

PARTNER: Community Futures Development Corporation of Nadina

Fisheries Renewal BC Investment: $16,571



Helping cattle and fish coexist

A collaboration involving funding from Fisheries Renewal BC and the Ministry of Agriculture and Food's Grazing Enhancement Fund resulted in three projects that will alleviate the impact of cattle on fish-bearing streams near Smithers.

- Canyon Creek. Cattle can no longer enter the creek because of new fences. Instead, they drink at watering troughs.
- Vanderven Creek. A new bridge and fencing prevents cattle from crossing through the creek and causing serious erosion affecting fish habitat.

(top) Glacier Gulch cattle access showing reinforcement to reduce sedimentation in creek and (bottom) completed project.

- Glacier Gulch. A cattle access ramp to a crossing point on this stream was stabilized and hardened using a patented subsurface reinforcement.

This will minimize cattle-caused erosion and sedimentation of the creek.

PARTNER: Community Futures Development Corporation of Nadina

Fisheries Renewal BC Investment: [illegible]

Creating a public information resource centre

Too often valuable reports and data on environmental issues are filed away in offices and storerooms that are inaccessible to the public. To make sure that this won't happen to the wealth of information collected about the Bulkley-Morice Watershed, the Community Futures Development Corporation of Nadina (CFDCN) established a public library.

Located in the organization's offices over Houston's shopping mall, the library has a mass of information on fish, land use planning, agriculture and forestry. While the library's main focus is the Bulkley and Morice watersheds, it also has a large collection of provincewide and general resource management information. Library users have access to more than 600 reports, texts, guides, periodicals and abstracts, along with 23 videos and over 100 maps and air photos. Other offerings include Internet access and free stewardship brochures.

"We are working hard to raise awareness of our library and letting local communities know about our excellent resources," says Greg Tamblyn, CFDCN's Watershed Stewardship Coordinator. "Through a partnership with Northwest Community College in Smithers our database will be searchable from the Internet. Having our resources listed on-line will increase our profile and attract clients."

PARTNER: Community Futures Development Corporation of Nadina

Fisheries Renewal BC Investment: $16,571

(top) Glacier Gulch cattle access showing reinforcement to reduce sedimentation in creek and (bottom) completed project

Helping cattle and fish coexist

A collaboration involving funding from Fisheries Renewal BC and the Ministry of Agriculture and Food's Grazing Enhancement Fund resulted in three projects that will alleviate the impact of cattle on fish-bearing streams near Smithers.

- Canyon Creek. Cattle can no longer enter the creek because of new fences. Instead, they drink at watering troughs.
- Vanderven Creek. A new bridge and fencing prevents cattle from crossing through the creek and causing serious erosion affecting fish habitat.
- Glacier Gulch. A cattle access ramp to a crossing point on this stream was stabilized and hardened using a patented subsurface reinforcement.

This will minimize cattle-caused erosion and sedimentation of the creek.

PARTNER: Community Futures Development Corporation of Nadina

Fisheries Renewal BC Investment: $10,938

Cariboo Chilcotin Fish Enhancement Society

Williams Lake

Cariboo-Chilcotin Fish Enhancement Society ADMINISTRATIVE PARTNER

A traditional Russel fence used to keep cattle from fish-bearing streams.

> *Although the province-wide abundance of some salmon species, such as chum and pink, is stable or increasing, declining stocks represent a loss of the genetic diversity that is essential to the long-term sustainability of salmon. Salmon bring essential marine-derived nutrients to British Columbia's coastal forest ecosystems.*
>
> ENVIRONMENTAL TRENDS IN BRITISH COLUMBIA 2000, P.44

Partners

Williams Lake Timber Supply Area
Cariboo Tribal Council
Likely and District Chamber of Commerce
Quesnel River Watershed Alliance
Baker Creek Enhancement Society
Cariboo Chilcotin Conservation Society
Cariboo Tribal Council
Carrier Chilcotin Tribal Council
Chilko Lake Community Association
Chimney/Felker Lakes Landowners' Association
Lower Bridge Creek Watershed Stewardship Society
San Jose Watershed Group
Timothy Lake Road Community Association
Cariboo Chilcotin Coast Tourism Association
Cariboo Communities Coalition
North Cariboo Metis Association
Share Cariboo Chilcotin Resources
Tatla Resource Association

Projects

ENVIRONMENTAL ACCOUNT .... TOTAL 15

STOCK/HABITAT ASSESSMENT 3

McKinley Creek Culvert Assessment
Assessment of Barren Mountain Lakes
Stormwater Treatment Study: Little Bridge Creek

STOCK ENHANCEMENT 2

Quesnel River Chinook Salmon Enhancement
Hilda Lake Enhancement Phase 3

HABITAT RESTORATION 6

Narcosli Survey and Restoration Project*
Little Bridge Creek Streambank Restoration
San Jose Riparian Restoration and Revegetation
Dog Creek Culvert Installment
Homathko River Livestock Impact Reduction*
Timothy Creek Restoration

EDUCATION & PUBLIC AWARENESS 3

Williams Lake River Assessment and Festival
Gavin Lake Fish Habitat Demonstration Site*
Watershed Care Guide for Lower Bridge Creek

STEWARDSHIP & COMMUNITY PLANNING ... 1

Technical Monitoring of Completed Projects

*indicates projects profiled on opposite page

FINANCIAL ACCOUNT	
Fisheries Renewal BC Approved Investments ($)	288,595
Other Investments ($)	160,899
Total Investments ($)	449,494
In-Kind Contributions (estimated $)	152,094
ECONOMIC DEVELOPMENT ACCOUNT	
Jobs Created – #/person-days	114/1465
Volunteer Contribution – days	178
EMPLOYMENT EQUITY ACCOUNT	
Fisheries Workers	25
Youth	20
Women	29
Aboriginal Persons	23

Cattle and fish don't mix

Ranch cattle find the Homathko River in the West Chilcotin not only convenient for drinking but they also enjoy tasting the shrubs on the banks. But that's not good for the fish that breed and live in the river, which eventually empties into Bute Inlet. When the cattle walk in river shallows, they disturb the gravel beds and riffle-pools that are habitat for rainbow, bull and cutthroat trout as well as Dolly Varden.

The Tatla Resource Association, working with local ranchers, approached Fisheries Renewal BC, the Cariboo Chilcotin Fish Enhancement Society and the Nature Conservancy of Canada for funding to build three kilometres of fences that will keep cattle away from sensitive parts of the river. In addition, the project includes alternate cattle watering facilities away from the river and replacement of riparian vegetation, now safe from cattle.

Instead of the usual wire and post barriers, the project organizers decided to build Russel fences that are part of the Chilcotin landscape and heritage. Sturdy and stable these fences don't require any digging and have a light impact on the environment.

PARTNER: Tatla Resource Association

Fisheries Renewal BC Investment: $30,000

Inner tube fishing in the Cariboo.

A practical primer for restoring fish habitat

About 75 kilometres northeast of Williams Lake, the University of British Columbia's Alex Fraser Research Forest is an outdoor classroom for hundreds of students as well as members of the public. With the construction of a two-kilometre fish habitat rehabilitation demonstration site, the students now have an addition to their curriculum.

Seven community members picked up useful employment skills while working on the project. Their experience will prove useful at other sites in the region where fish habitat and streambanks need restoring.

PARTNER: UBC/Alex Fraser Research Forest

Fisheries Renewal BC Investment: $22,850

Planning for future restoration work

Narcosli Creek is a valuable salmon spawning stream flowing into the Fraser River southwest of Quesnel. However, logging impacts, land clearing and cattle grazing close to the stream have all contributed to a decline in the Narcosli's productivity. In August 2000, the Baker Creek Enhancement Society hired a local company to survey 50 kilometres along the Narcosli, including a close-up review conducted on foot.

The research identified 6 sites where strategies such as keeping cattle away from the water, planting native shrubs and conifers along the stream's banks and stabilizing gravel bars will restore salmon habitat.

PARTNER: Baker Creek Enhancement Society

Fisheries Renewal BC Investment: $48,220

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PARTNER: Baker Creek Enhancement Society

Fisheries Renewal BC Investment: $48,620

Central Coast Partnership Group

Bella Coola

Community Futures Development Corporation of the Cariboo Chilcotin-Bella Coola Office ADMINISTRATIVE PARTNER

Partners

Central Coast Chamber of Commerce
Nuxalk Nation
Central Coast Regional District
Ocean Falls Improvement District
Heiltsuk Nation
Bella Coola Rod and Gun Club
United Fishermen and Allied Workers
Union/Canadian Auto Workers Local #27
Central Coast Fishermen's Protective Association
Central Coast Economic Development Commission
Kitasoo/Xaixais Nation

Projects

ENVIRONMENTAL ACCOUNT .... **TOTAL 14**

INVENTORY & MAPPING **1**
Heiltsuk Stream Inventory 2000

STOCK/HABITAT ASSESSMENT **4**
Necleetsconnay River Coho DNA Assessment
Fish Habitat Assessment and Restoration
Canoona River/Anchor Lake Assessment*
Central Coast Adult and Juvenile Coho Assessment

STOCK ENHANCEMENT **1**
Kitasoo Hatchery Incubation Upgrade

HABITAT RESTORATION **3**
Paisla Creek & The Ponds-Phase 2*
Anderson Creek Habitat Rehabilitation
Kwakiutl Creek Restoration Initiative

EDUCATION & PUBLIC AWARENESS **1**
Fisheries Field Technician Certificate Program

STEWARDSHIP & COMMUNITY PLANNING .. **1**
Central Coast Aquatic Ecosystem Info. & Decision System

OTHER **3**
Year 2000 Bella Coola Coho Initiative
Kitasoo Fisheries 2000
Hagensborg Fish Fence and Fishways

*indicates projects profiled on opposite page

Counting the fish at Anchor Lake on Princess Royal Island.

> *844 salmon stocks of the approximately 10,000 investigated in British Columbia have been classified as extinct or at moderate to high risk of extinction.*
>
> ENVIRONMENTAL TRENDS IN BRITISH COLUMBIA 2000, P.44

FINANCIAL ACCOUNT	
Fisheries Renewal BC Approved Investments ($)	348,992
Other Investments ($)	33,579
Total Investments ($)	382,571
In-Kind Contributions (estimated $)	92,306
ECONOMIC DEVELOPMENT ACCOUNT	
Jobs Created – #/person-days	97/1564
Volunteer Contribution – days	188
EMPLOYMENT EQUITY ACCOUNT	
Fisheries Workers	31
Youth	11
Women	19
Aboriginal Persons	31

Assessing just how productive a watershed could be

In the late 1950s a series of three artificial fishways were built on the lower Canoona River to encourage more salmon to make the journey from salt water to the spawning and rearing shallows around and in Canoona Lake. The Canoona system is on the east side of Princess Royal Island.

The fishways were undoubtedly successful. The Kitasoo/Xaixais First Nations annually harvest about 2000 sockeye and coho salmon at the mouth of the river. Program manager Larry Greba calls this system "a coho factory with tremendous spawning and rearing opportunities that could support 10,000 to 15,000 adult coho returns in a good year."

To assess the system's capacity, Mr Greba and others from the Kitasoo/Xaixais Fisheries Program surveyed and collected information from the pristine waters and unlogged shores around Anchor Lake, a 1500-hectare expanse which connects to Canoona Lake via an 8-kilometre stream. They found that coho and steelhead jump through a 300-metre stretch of falls and cascades 3 kilometres above Canoona Lake but sockeye and pink salmon appear not to.

This suggests that a fourth fishway would enable these salmon as well as more coho to enter Anchor Lake. A final determination, however, will depend on the quantities of plankton (on which juvenile salmon feed) found in the lake. The group plans to make another trip to the Canoona watershed in 2001 to look more closely at the falls and see how they can be made passable to salmon.

PARTNER: Kitasoo Fisheries Program

Fisheries Renewal BC Investment: $12,500

Gabion (or large wire basket) used for anchoring large woody debris in background. Bella Coola River. After positioning it, workers filled the basket with rocks so it would sink slowly through the ice.

Unique solution for building fish a renewed home

Adjacent to the Nuxalk Nation village in the Bella Coola Valley are a series of isolated side channels of the Bella Coola River known as "The Ponds" which provide juvenile coho salmon and cutthroat trout with year round rearing habitat. Changes over time within the Bella Coola River have resulted in The Ponds becoming partly isolated and have reduced the amount of fallen trees, rootwads and boulder cover that fish need.

To improve this habitat, the Nuxalk Nation decided to install woody debris and rootwads but they faced a challenge—how to carry out the work without disrupting the fish and their existing habitat? Using heavy machinery in a sensitive fish habitat area would be unacceptably disruptive and manually carrying large pieces of wood was impractical.

The project's biologists from G3 Consulting Ltd. came up with an innovative solution—wait until the area freezes over and move the large woody debris and their anchors, weighing up to 1200 kilograms, to the selected locations on the ice.

Nuxalk fisheries crews, working slowly and exercising the utmost caution, checked the ice conditions each day to make sure they had sufficiently thick ice to work on. As an extra precaution, they worked on plywood sheets and used safety lines. An aluminum boat was kept on site to rescue anyone who dropped through the ice. It was never needed.

Instead of traditional large boulder anchors, the crews installed gabions, giant wire baskets used in road construction. The empty basket was positioned on the ice and then gradually filled with rocks until they were heavy enough to fall slowly through the ice, usually overnight. This method proved to be an ingenious solution that may be suitable for other fish habitat restoration projects where using machinery is inadvisable.

PARTNER: Nuxalk Integrated Resources

Fisheries Renewal BC Investment: $45,851

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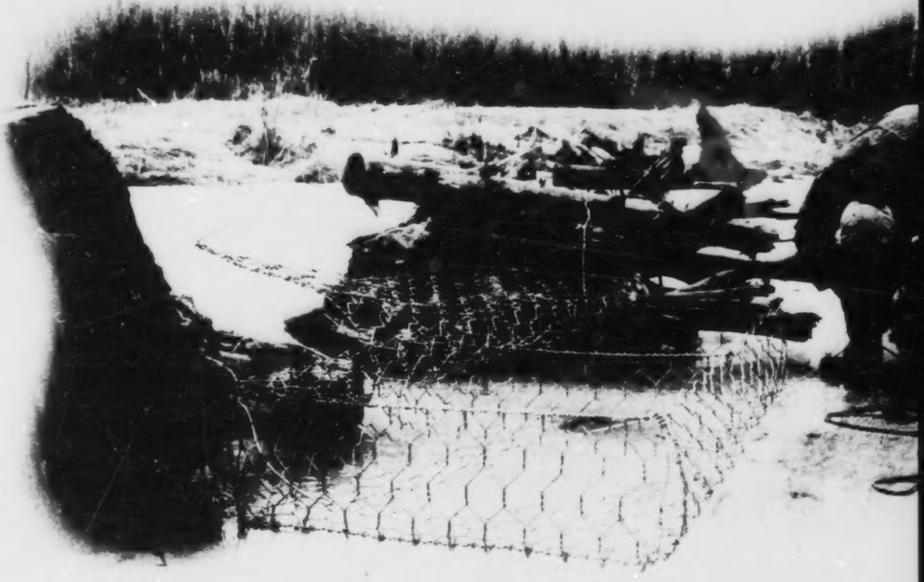
PARTNER: Kitasoo Fisheries Program

Fisheries Renewal BC Investment: $12,500



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PARTNER: Nuxalk Integrated Resources

Fisheries Renewal BC Investment: $45,851

Central Island Fisheries Renewal Partnership

Nanaimo

Community Fisheries Development Centre of Nanaimo

ADMINISTRATIVE PARTNER

Partners

BC Conservation Foundation
Central Vancouver Island Mapping and Inventory Society
Englishman River Streamkeepers Society
Halalt First Nation
Lantzville Streamkeepers Society
Parksville-Qualicum Fish & Game Association
Chemainus First Nation
Ko'pthut Society
Nanoose First Nation
Qualicum First Nation
Snuneymuxw First Nations
Islands Trust
Craig Creek Coho Project
Georgia Basin Ecological Assessment and Restoration Association
Lasqueti Fishery/Forestry Renewal Society
Mid-Vancouver Island Habitat Enhancement Society
Mount Arrowsmith Biosphere Foundation
Nanaimo Area Land Trust
Nile Creek Enhancement Society
Pacific Gillnetters Association
Qualicum Beach Streamkeepers Society
United Fishermen & Allied Workers' Union-CAW
City of Nanaimo
Timber West Forest Products Ltd.
Community Concepts
West Coast Trollers' Association
Ladysmith Sportsmen's Association
Department of Fisheries, Malaspina College
Nanoose Streamkeepers Society
Nanaimo Regional District
Weyerhaeuser Ltd.
Parksville Pro Guides Ltd.
Nanaimo Fish & Game Association
Cedar Parks and Recreation Advisory Committee
Community Fisheries Development Centre
Northwest Ecosystem Institute
Parksville Streamkeepers
Shelley Brook Stewardship Project
Shorekeepers
Walley Creek Stewards
Fisheries and Oceans Canada
Dave Clough Consulting

Projects

ENVIRONMENTAL ACCOUNT .... TOTAL 21

INVENTORY & MAPPING 4
GPS Mapping*
French Creek Biological Inventory & Debris Stabilization
Shorekeeper's Foreshore Mapping
Qualicum Bay Stream Mapping

STOCK/HABITAT ASSESSMENT 2
Englishman River Adult Enumeration Project
Streamkeepers Gear Pooling

STOCK ENHANCEMENT 1
Englishman River Enhancement Project

HABITAT RESTORATION 11
Grandon Creek Culvert Modification
Nanoose Bay Estuary Restoration Project-Phase 1-Reopening Historical Side Channel
Napoleon Creek Side/Channel*
Lasqueti Salmon Restoration Project-Ogden Cr.
Chase River-Salmonid Habitat Restoration and Enhancement
Nanaimo River Estuary Project
Walley Creek Salmonid Enhancement Project
Millstone River Estuary Habitat Enhancement
Salmonid Habitat Creation
Departure Creek Restoration Project
Little Qualicum River Hydro Right-of-Way Revegetation

STEWARDSHIP & COMMUNITY PLANNING . . 2
Project 2000
Mid-Island Streamkeepers Outreach

OTHER 1
Nanaimo River Fertilization Feasibility

*indicates projects profiled on opposite page

FINANCIAL ACCOUNT	
Fisheries Renewal BC Approved Investments ($)	327,427
Other Investments ($)	145,827
Total Investments ($)	473,254
In-Kind Contributions (estimated $)	240,228
ECONOMIC DEVELOPMENT ACCOUNT	
Jobs Created – #/person-days	143/2856
Volunteer Contribution – days	637
EMPLOYMENT EQUITY ACCOUNT	
Fisheries Workers	55
Youth	24
Women	42
Aboriginal Persons	14

Finding where the salmon are in Central Vancouver Island

Since 1997, three ex-fishing industry workers have been putting new-found skills in surveying and mapping to use in mapping, inventorying and assessing fish habitat. Their organization, Central Vancouver Island Mapping (CVIM), carries out Sensitive Habitat Inventory and Mapping (SHIM) for land use planning as well as Global Positioning System (GPS) work for local governments and companies as well as streamkeeper groups.

In 2000/2001, CVIM mapped, inventoried and assessed about 100 kilometres of watercourses in the Nanaimo Regional District. During this work, the mapping and inventory tasks carried out along Nash and Nile Creeks were particularly important since both systems share migrating and rearing coho and chum salmon. CVIM is undertaking the first steps to rebuilding salmon stocks in the region; they provide the information they gather to municipal governments who take the necessary steps to protect and prevent potential damage to fish habitat.

PARTNER: Community Fisheries Development Centre of Nanaimo

Fisheries Renewal BC Investment: $18,071

Giving Nanaimo River salmon a new opportunity

Local streamkeepers and fishers feel the Nanaimo River watershed contains some of the most damaged salmon runs on Vancouver Island. Just one tributary, Haslam Creek, used to have 100,000 pink salmon returning but recent numbers have been as low as 2000.

As part of a wide-ranging long-term plan to restore salmonid habitat, the Nanaimo River Salmonid Enhancement Program's hatchery staff proposed constructing a 600-metre side-channel near Napoleon Creek. The hatchery believes that this will provide stable spawning and overwintering habitat for several salmonid species, including coho salmon and cutthroat trout.

Work on the side-channel went on during late summer and early fall 2000. Snuneymuxw First Nation members cleared land for a right-of-way and local contractors excavated and hauled away the overburden to create the side-channel. Harmac Pacific Inc. which owns the land was an enthusiastic supporter of the project.

In November 2000, hatchery staff began trapping minnows to measure the project's progress. In the first 4 months, they not only caught lots of little fish but spotted 22 coho spawner pairs, a positive sign that the channel will prove to be successful spawning and rearing habitat. The site will be accessible to the public and, in preparation for visitors, work also began on educational signage and kiosks for the channel as well as nature trails.

PARTNER: Community Futures Development Corporation of Central Island

Fisheries Renewal BC Investment: $32,000

Napoleon Creek, near Nanaimo. Construction of 600-metre side-channel.

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PARTNER: Community Fisheries Development Centre of Nanaimo

Fisheries Renewal BC Investment: $18,871

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Fisheries Renewal BC Investment: $32,000

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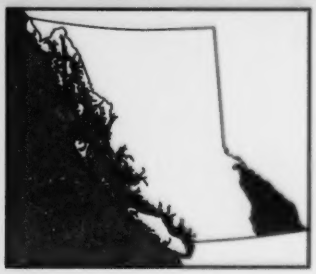

Columbia-Kootenay Fisheries Renewal Partnership

Cranbrook

Ktunaxa/Kinbasket Tribal Council ADMINISTRATIVE PARTNER

Partners

Ktunaxa/Kinbasket Tribal Council
Trail Wildlife Association
Columbia Basin Trust
East Kootenay Environmental Society
Slocan Valley Watershed Alliance
Ministry of Environment, Lands, and Parks
Columbia Basin Fish and Wildlife Compensation Program
Canadian Columbia River Inter-tribal Fisheries Commission
Fraser Headwaters Alliance
Redfish Consulting Ltd.
Upper Kootenay River Landowners Riparian Stewardship Group
Slocan ' Fish in the River' Project
Earth Matters
Salmo Watershed Streamkeepers Society
Regional District of East Kootenay
Bonnington South Slocan Boy Scouts
G.G. Oliver & Associates
Lower Sand Creek Restoration Group
T.A.S.K.
Ministry of Fisheries

Projects

ENVIRONMENTAL ACCOUNT .... TOTAL 33

STOCK/HABITAT ASSESSMENT 18

Upper West Arm of Kootenay Lake Kokanee Conservation and Enhancement Plan
Slocan Lake Limnological Assessment (Year 2 of 2)
Camp Creek Kokanee Spawner Assessment
Lower Goat River Fish and Fish Habitat Assessment
Slocan River Habitat and Rainbow Trout Population Assessment
Westslope Cutthroat Trout Conservation Project
Assessment of Habitat Restoration Opportunities for Gerrard Rainbow Trout
Canoe Valley Culvert Assessment
Kootenay River Bull Trout Telemetry Survey
Elk River Cutthroat Trout Telemetry Study
Norns Creek Bull Trout Radiotelemetry and Habitat Enhancement
Bull River Trout/Char Side-Channel Feasibility Study
Qualitative Assessment of 2000 Gerrard Rainbow Trout Fry Rearing in the Lardeau River
Genelle Side Channel Feasibility and Design
Kootenay River Floodplain/Tributary Landowner Stewardship
Salmo River Restoration: Spawning Platforms and Riparian Enhancement*
Joseph Creek Restoration – Year 2
Lake Revelstoke Winter Creel Survey

HABITAT RESTORATION 5

Lower Sand Creek Fish Habitat Restoration-Phase 1
Norns Creek Rehabilitation-Phase 2
Salmo River Restoration and Protection Project*
Wolf Creek Restoration
Blueberry Creek Fishway

EDUCATION & PUBLIC AWARENESS 5

Columbia Basin Sustainable Angling Symposium
CKFRP Public Outreach
CKFRP Communications Project
Public Education on Wetland Enhancement and Restoration
Project West Workshop

STEWARDSHIP & COMMUNITY PLANNING .. 4

Environmentally-Responsible Recreation on our Shorelines
Joseph Creek Awareness and Environmental Education
South Slocan River Stewardship Little Slocan River
CKFRP Sub-regional Strategic Planning

OTHER 1

Community Support and Project Monitoring and Evaluation

*indicates projects profiled on opposite page

FINANCIAL ACCOUNT	
Fisheries Renewal BC Approved Investments ($)	491,921
Other Investments ($)	231,241
Total Investments ($)	723,162
In-Kind Contributions (estimated $)	274,473
ECONOMIC DEVELOPMENT ACCOUNT	
Jobs Created – #/person-days	156/2367
Volunteer Contribution – days	1037
EMPLOYMENT EQUITY ACCOUNT	
Fisheries Workers	8
Youth	12
Women	39
Aboriginal Persons	5

Fish counting fence on Salmo River.

Restoring bull trout and a Kootenay river

The bull trout in the Salmo River have the misfortune to live alongside tailing piles from abandoned mines, a major highway, urban developments, forestry operations, a railway and farms, all of which have had a negative effect on this West Kootenay river. Add to these the impacts of hydroelectricity dams and poaching and it's easy to see why the best estimate is that there are only about 200 of this important sport fish left in the Salmo.

The bull trout with its large head and powerful fins can grow to as much as 13 kilograms although its usual weight is about 4.5 kilograms. A few years ago, local anglers started reporting that they weren't seeing as many bull trout in the Salmo as previously; to reverse this sad situation, they formed the Salmo Watershed Streamkeepers Society.

"The bull trout is an indicator species," says Kenton Andreashuk, Stewardship Coordinator with the Columbia-Kootenay Fisheries Renewal Partnership. "If their numbers are declining rapidly, it's a first warning that the habitat quality of a river is deteriorating. Provincewide, the bull trout is just one step away from being declared an endangered species."

The project is tackling the river's problems on a broad front. The Streamkeepers have assessed the state of spawning grounds along a 30-kilometre stretch of the river between Ymir and Salmo and determined which should have the highest priority for rehabilitation. To find out where the fish are living, 20 bull trout are being tracked via radio-telemetry tags.

In 1999, this tracking revealed that there are bull trout habitats along the Salmo in stretches with fast, cool water and high gradients. Unfortunately there are piles from old mine tailings on top of some adjacent riverbanks and these are eroding. In 2000, the Salmo River Protection Committee worked with the Streamkeepers and property owners to stabilize these riparian areas and protect the habitats below. Other landowners are also starting to realize the benefits of a healthy river.

The Streamkeepers have also been working hard on improving public awareness of the state of the Salmo through a series of community meetings. They're also pleased that two schools, Salmo Secondary and Salmo Elementary, plan to become involved in helping to restore critical fish habitat and make such work part of the curriculum.

PARTNER: Salmo Watershed Streamkeepers Society

Fisheries Renewal BC Investment: $11,500

BUILT TO LAS

James Baxter of Baxter Environmental showing Grade 3 students from Salmo Elementary School how to implant a radio tag in a bull trout.

Fish counting fence on Salmo River

Restoring bull trout and a Kootenay river

The bull trout in the Salmo River have the misfortune to live alongside tailing piles from abandoned mines, a major highway, urban developments, forestry operations, a railway and farms, all of which have had a negative effect on this West Kootenay river. Add to these the impacts of hydroelectricity dams and poaching and it's easy to see why the best estimate is that there are only about 200 of this important sport fish left in the Salmo.

The bull trout with its large head and powerful fins can grow to as much as 13 kilograms although its usual weight is about 4.5 kilograms. A few years ago, local anglers started reporting that they weren't seeing as many bull trout in the Salmo as previously; to reverse this sad situation, they formed the Salmo Watershed Streamkeepers Society.

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PARTNER Salmo Watershed Streamkeepers Society

Fisheries Renewal BC Investment: $11,500

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Combined North Island Fisheries Centre

Port Hardy

Combined North Island Fisheries Centre ADMINISTRATIVE PARTNER

Partners

Kwakiutl Territorial Fisheries Commission
'Namgis First Nation
Mount Waddington Regional District
Village of Alert Bay
United Fisherman Allied Workers Union
Quatsino First Nation
Tsawataineuk First Nation
Gwa'Sala-'Nakwaxda'xw First Nation
Kwakiutl First Nation
District of Port Hardy

Projects

ENVIRONMENTAL ACCOUNT .... TOTAL 16

INVENTORY & MAPPING 2
Broughton Archipelago Stewardship Project
Development of Stream Habitat Database and Interactive Web Map for North Island

STOCK/HABITAT ASSESSMENT 4
Gwa'sala-'Nakwaxda'wx Stream Assessment and Restoration
Quatsino Sound Stream Assessment and Restoration Project
Kwiksutaineuk-ah-kwaw-ah-mish Salmon Enhancement Project
Salmon Habitat Management Program Year 2000 – Cluxewe River

STOCK ENHANCEMENT 5
Viner River Chum Enhancement Project
Warner Bay Hatchery
Quatse River Hatchery Equipment Upgrade
Nimpkish River Hatchery Upgrade
Bear Creek/Kokish River Salmonid Enhancement*

HABITAT RESTORATION 3
Nimpkish Resource Management Board – Area Funding Plan
Cluxewe Creek Restoration
GWA-YEE Fisheries Resource Management Project

STEWARDSHIP & COMMUNITY PLANNING .. 2
Stewardship Coordinator
Stewardship Planning and Fish Expo*

***indicates projects profiled on opposite page**

Excavating spawning/rearing channels in Kokish River watershed.

> *On the east coast of Vancouver Island a lack of forest cover in the riparian zone is one of the factors limiting fish populations in about two-thirds of the small streams.*
>
> ENVIRONMENTAL TRENDS
> IN BRITISH COLUMBIA 2000, P.47

FINANCIAL ACCOUNT	
Fisheries Renewal BC Approved Investments ($)	648,145
Other Investments ($)	575,468
Total Investments ($)	1,223,613
In-Kind Contributions (estimated $)	451,501
ECONOMIC DEVELOPMENT ACCOUNT	
Jobs Created – #/person-days	81/5013
Volunteer Contribution – days	1640
EMPLOYMENT EQUITY ACCOUNT	
Fisheries Workers	43
Youth	15
Women	22
Aboriginal Persons	54

Generating reasons for optimism—Fish Expo

Fish Expo was, as Colleen Hemphill, a treaty negotiator for the Gwa'Sala-Nakwaxda'xw First Nation described it, a forum "to bring people together to share information, discuss issues and work towards a common vision for the future in the areas of aquatic resource stewardship, harvesting and processing." An initiative of the Combined North Island Fisheries Centre (CNIFC), the event, held in February 2001, attracted more than 300 people to its Port Hardy venue.

They heard keynote speakers address such topics as area-based fisheries management, stewardship planning and mapping and the effect of global warming on salmon's ocean environment. They shared information on issues such as stewardship, local fisheries management and sustainable community economic development in the aquatic resource sector. A trade show had exhibits of locally processed seafood as well as information booths.

The overriding theme was, as CNIFC manager Brenda Bauer described it, one of community cooperation and control. "There is help available if we work together," she said. "If we want to fix our economy, the onus is on the community to decide what it wants and to work for it. Our community intends to build a strong future in the aquatic resource sector."

PARTNER: Combined North Island Fisheries Centre

Fisheries Renewal BC Investment: $20,423

New channel gives young coho a winter home

On Rivers Day 2000, the new Tsulton River Groundwater Channel opened to provide much-needed salmon habitat in the Kokish River watershed. The Kokish's salmon stocks have declined steeply in recent years and the 400-metre channel is expected to help rebuild these stocks.

This project was one of five undertaken by the Nimpkish Resource Management Board in 2000/2001 to restore fish habitat in this important river system. Overall there were three spawning/rearing channels constructed in the watershed. In addition, the project realized completion of a fertilization project in Woss Lake and assessment programs in the Nimpkish and Kokish watersheds.

> *"There is help available if we work together. If we want to fix our economy, the onus is on the community to decide what it wants and to work for it. Our community intends to build a strong future in the aquatic resource sector."*

Designed to provide refuge areas from extreme winter flows and to retain water during dry summer months, work on the groundwater-fed Tsulton channel finished in August 2000. "Juvenile coho salmon have already appeared in it," says long-time local volunteer and hatchery manager Ray Bentley proudly. "Local fishers are hoping adult chum will use it for spawning."

PARTNER: Nimpkish Resource Management Board

Fisheries Renewal BC Investment: $160,000

Fish Expo participants gather round a ceremonial fire.

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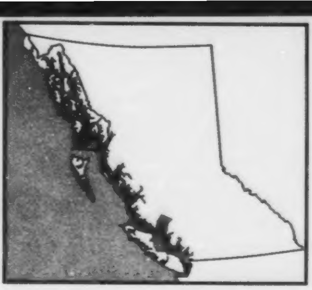

Comox-Strathcona Fisheries Renewal Partnership

Campbell River

Community Futures Development Corporation of Strathcona

ADMINISTRATIVE PARTNER

Highland Secondary School students steamkeeping along Brooklyn Creek for work experience.

Partners

Comox Band
Little River Enhancement Society
Millard Piercy Watershed
Campbell River Band
Village of Sayward
Klahoose Fisheries
Gillard Pass Association
Homalco Band
Courtenay Fish and Game
Fanny Bay Enhancement Society
Pacific Trollers Association
Tsolum River Task Force
Cape Mudge Band
Willow Creek Watershed Society
Stuart Island Community Association
Klahoose First Nation
North Island Fisheries Initiatives
Steelhead Society of BC
Tlegay Fishing Society
Oyster R. Enhancement Society
Discovery Coast Greenways
Tyee Club of BC
R.E.M. Contracting
Comox Valley Environmental Council

Projects

ENVIRONMENTAL ACCOUNT .... TOTAL 30

INVENTORY & MAPPING 5

Mapping Mohun, Nunns, and Kingfisher Creeks
2000/2001 Watershed Mapping and Inventory
Quinsam River Downstream Enumeration
Simms and Willow Creeks Enumeration
Community Stewardship GIS Support for Watershed Planning

STOCK/HABITAT ASSESSMENT 8

Juvenile Downstream – Simms, Willow, and Nunns Creeks
Heydon Creek
Headquarters Creek Habitat and Spawner Assessment and Restoration Project Planning
Habitat Assessments and Enhancement Opportunities in Village Bay and Open Bay Watersheds
Stock Assessment, Storie Creek and Woods Creek*
Puntledge River High Temperature Study
Feasibility Study on Flows for Haig-Brown Kingfisher Creek
Habitat Assessment and Enhancement for Hyacinthe and Granite Bay Creeks*

STOCK ENHANCEMENT 2

Philips River Brood and Fry Rearing Facility
Rosewell Creek-Captive Brood/Accelerated Smolt Program

HABITAT RESTORATION 11

Tributary 2, Little River-Weirs
Refuge Lagoon Salmonid Enhancement
Raven Channel Extension
Brooklyn Creek Riparian Enhancement Project*
Restoring Salmon Habitat-Denman Island
Complexing and Revegetation Elk Fall #3
Campbell River Estuary Restoration Plan
Coho and Cutthroat Habitat Monitoring and Bioengineering
Mayfly Creek Rearing Channel Layout
2000 – R.1, Little River - Riparian
Piercy Creek Mainstem Channel/Habitat Enhancement and Restoration

STEWARDSHIP & COMMUNITY PLANNING . . 2

Nunns Creek Stewardship Project
Willow Creek Watershed Management Plan

OTHER 2

Fry Salvage
Flow Estimates for Urban Watersheds

*indicates projects profiled on opposite page

FINANCIAL ACCOUNT	
Fisheries Renewal BC Approved Investments ($)	509,183
Other Investments ($)	466,143
Total Investments ($)	975,326
In-Kind Contributions (estimated $)	340,580
ECONOMIC DEVELOPMENT ACCOUNT	
Jobs Created – #/person-days	122/3707
Volunteer Contribution – days	1467
EMPLOYMENT EQUITY ACCOUNT	
Fisheries Workers	51
Youth	10
Women	34
Aboriginal Persons	13

Volunteers planting riparian trees and shrubs along Brooklyn Creek, near Comox.

Blackberries—good to eat, lousy for fish habitat

Up until fall 2000, the banks of Brooklyn Creek near Comox were overgrown with blackberry bushes which are bad for both fish habitat and bank stability—their tangling branches do not provide enough cooling shade and their roots erode streambanks. In 2000 a group of local residents formed a streamkeeping group to restore the creek; their first project was to replace the dense brambles along a 575-metre stretch of the creek with native shrubs and small trees to shade the water.

To help them with their work, the streamkeepers enlisted the aid of Highland Secondary School students who were able to incorporate streamkeeping into their curriculum. Each student on the field trip planted a riparian shrub and, in addition, seven students signed up for work experience on the project.

The project could not have succeeded without the cooperation of the farmer on whose land they did the work. The Brooklyn Creek Streamkeepers are hoping that other farmers will follow his example so that they can continue this work on more sections of the creek.

PARTNER: Brooklyn Creek Streamkeepers

Fisheries Renewal BC Investment: $4205

Counting fish after they've hatched

Obtaining accurate year-over-year numbers for migrating salmon is an essential part of any management plan for restoring stocks. One of the most accurate methods developed for accomplishing this is a fish fence which enables observers to count salmon numbers as they pass through a gate.

In 2000/2001, Storie Creek Streamkeepers installed fences for counting adult salmon on Storie Creek and Woods Creek near Campbell River. They reported the numbers to Fisheries and Oceans Canada's Quinsam Hatchery for use in managing stocks; as well, they also published the figures on the Internet.

In preparation for spring migrations of juvenile salmon, the Streamkeepers fabricated and installed different fences on the same creeks. The organization trained and employed former fisheries workers in all of the project's phases.

PARTNER: Storie Creek Streamkeepers

Fisheries Renewal BC Investment: $24,619

How to determine an island's fish rearing capacity

Tramping up and down more than 30 kilometres of Quadra Island streamcourses in the rainy months is demanding work. But close observation is the only way to make accurate assessments of fish habitat and gather the data needed for making baseline inventories of stream conditions.

In 2000/2001, the Quadra Island Salmon Enhancement Society, working with the Cape Mudge First Nation and private sector partners, succeeded in determining rearing and spawning capacity in four island watersheds as a preliminary step in setting salmon enhancement objectives. The Society has also contacted woodlot and timber company licensees with a view to establishing partnerships when restoring and improving fish habitat.

PARTNER: Quadra Island Salmon Enhancement Society

Fisheries Renewal BC Investment: $10,172

Fish counting fence on Woods Creek, near Campbell River.

Volunteers planting riparian trees and shrubs along Brooklyn Creek, near Comox.

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PARTNER: Quadra Island Salmon Enhancement Society

Fisheries Renewal BC Investment: $10,172

Fish counting fence on Woods Creek, near Campbell River

Cowichan Fish and Habitat Renewal Board

Duncan

Cowichan Tribes ADMINISTRATIVE PARTNER

Partners

Cowichan Fisherman's Association
UFAWU/CAW
Steelhead Society
Community Futures Development Corporation
Cowichan Agricultural Society
Cowichan Rod and Gun Club
Somenos Marsh Wildlife Society
Lyackson First Nation
Chemainus First Nation
Cowichan Harbour Authority
Ladysmith Harbour Authority
Cowichan Fly Fishers
Cowichan Watershed Council
Cowichan Valley Naturalists
Lake Cowichan First Nation
Halalt First Nation
Malahat Band
Cowichan Lake Salmonid Enhancement Society

> *18 per cent of coho and 13 per cent of chinook stocks are at moderate to high risk of extinction. Chinook stocks are most at risk on Southwest Vancouver Island while coho stocks are most at risk on the Central Coast.*
>
> ENVIRONMENTAL TRENDS IN BRITISH COLUMBIA 2000, P.44

Projects

ENVIRONMENTAL ACCOUNT .... TOTAL 25

INVENTORY & MAPPING 3
Penelakut Spring 2000 Inventory
Cowichan Lake Adult Coho Enumeration
Fish First Spawning Stock Assessment

STOCK/HABITAT ASSESSMENT 2
Koksilah River GPS Mapping & Assessment
Dyke Road/Hatchery Side Channel Engineering Survey

STOCK ENHANCEMENT 1
Chemainus First Nation Salmon Enhancement – Restoring Our Creeks

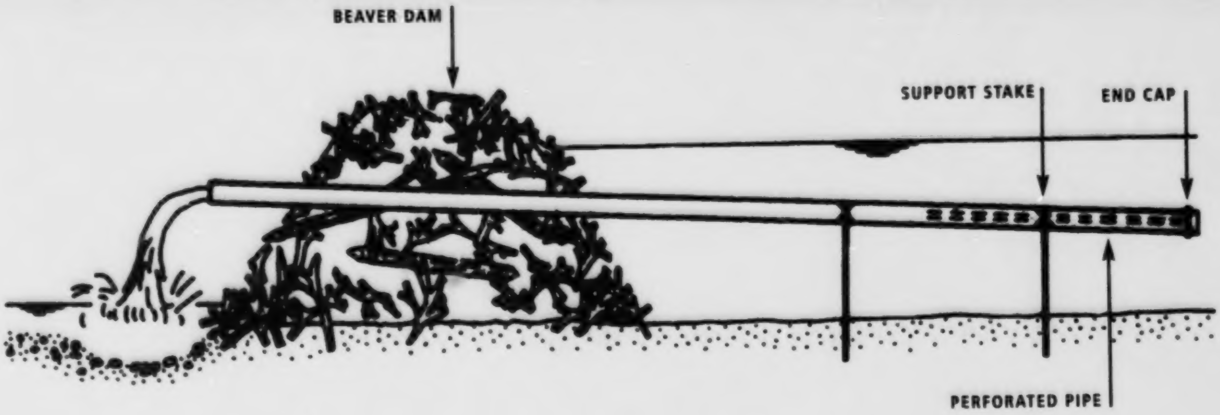
HABITAT RESTORATION 15
Stolz Claybank Restoration Project, Phase 1
Beaver Lake Coho Smolt Release Dam Operation
Blind Channel Planting
Spiers Creek/Cowichan Bay Road Crossing
Four Side Channels Restoration Project – Phase 2
Garnett Creek Restoration Phase 2 Glenora Creek Beaver Dam Control*
Cowichan Lake Pilot Project – Water Conservation For Salmonids
Glenora Creek Habitat Restoration*
Riparian Restoration on Bonsall Creek Watershed
Robertson Side Channel Restoration Part 2
Removal of Obstruction to Spawning Bed on Miracle Creek
Stoltz Claybank Restoration Project, Phase 2
Blind Channel Planting Continuation
Porter Creek Stewardship and Restoration Project
Planning for Averill Creek, Phase 2 Restoration

STEWARDSHIP & COMMUNITY PLANNING .. 3
Bonsall Creek Strategic Plan
Stumps for Streams
Cowichan Valley Regional Production Plan Update 23

EDUCATION & PUBLIC AWARENESS 1
Speaker Series

*indicates projects profiled on opposite page

FINANCIAL ACCOUNT	
Fisheries Renewal BC Approved Investments ($)	329,482
Other Investments ($)	0
Total Investments ($)	329,482
In-Kind Contributions (estimated $)	265,316
ECONOMIC DEVELOPMENT ACCOUNT	
Jobs Created – #/person-days	117/1900
Volunteer Contribution – #/person-days	109/495
EMPLOYMENT EQUITY ACCOUNT	
Fisheries Workers	25
Youth	15
Women	14
Aboriginal Persons	41



Finding the right level for beaver dams

The water behind a beaver dam on Garnett Creek in the Cowichan River watershed created good conditions for juvenile coho salmon to grow but tended to flood farmers' fields. In the distant past the solution was to dynamite the structures but, over the years, people have designed methods to preserve the dams, fish habitat and agricultural production. In 2000/2001 this project installed a levelling device on the dam that keeps the water at a level that's good for the young coho and enables the farmer to harvest their crops.

Another part of the project was to stabilize the creek's banks and plant trees and shrubs along them, thus decreasing the amount of sediment (which fish don't like) in the water. The property owners along the creek co-operated in every way with this project.

PARTNER: FishFirst Environmental Ventures

Fisheries Renewal BC Investment: $22,096

Creating productive pools

Like many streamcourses in south Vancouver Island, Glenora Creek in the Cowichan River watershed tends to dry up in the summer and flood in the winter—both conditions can destroy fish. In 1999 and 2000 a series of weirs made from logs created pools with sufficient depth and protection to enable juvenile coho and cutthroat to survive year-round.

In addition project workers manually moved rocks and deepened parts of the streambed to create other pools. With the addition of large tree roots to this habitat, the project's organizers hope that they have recreated a productive salmonid rearing environment. In October 2000, initial sampling measurements indicated they've been successful. Weyerhaeuser provided the innovative technology for this project and funding went to hire local community members, including a biologist, engineer and labourers to do the restoration work.

PARTNER: Weyerhaeuser

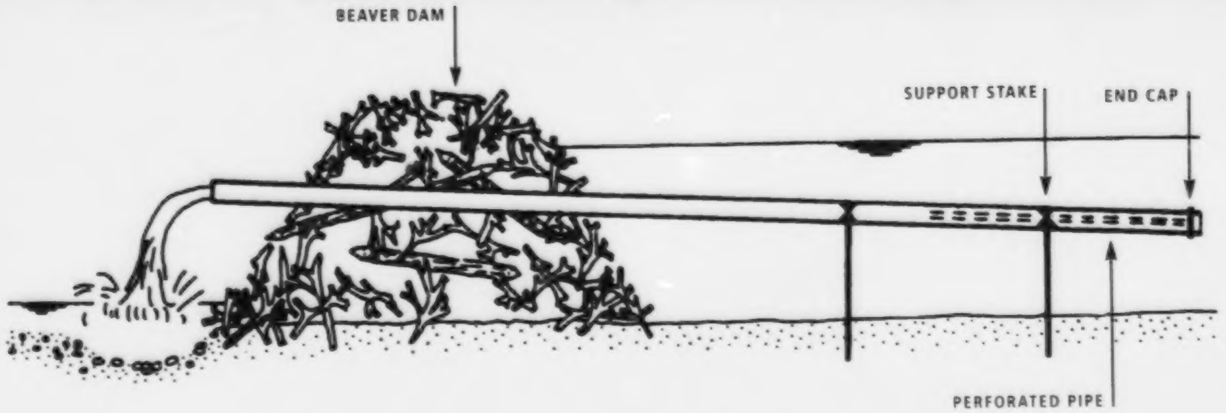
Fisheries Renewal BC Investment: $19,066

Treating beaver dams with care

Beaver dams are both a help and a hindrance to fish. The ponds that beavers create in streams provide juvenile salmon and trout with the slow-flowing, nutrient-rich water in which they can thrive. But the dams may also prevent salmon from swimming upstream to their spawning grounds. In the summer, they can block downstream water flow to the extent that other rearing habitat dries up.

So streamkeepers and fisheries technicians resort to a variety of tactics that overcome beaver dam problems while retaining their benefits. To help salmon return to spawning beds, they may build a migratory channel around the dam or insert boxes in it to create stream access.

A less sophisticated but equally effective approach is to make an opening in the dam so the fish can leap up more easily—the trouble with this ploy is that the beavers repair the dam at night. To prevent this and to ensure safe passage for salmon a pipe driven through a dam will increase waterflow downstream.



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Fraser Valley Regional Watersheds Coalition

Mission

Community Futures Development Corporation of North Fraser

ADMINISTRATIVE PARTNER

Partners

Abbotsford Soil Conservation Association
Agassiz/Harrison Mills Drainage Committee
Alouette River Management Society
BC's Wild Heritage
BC Watershed Stewardship Alliance
Cheam First Nation
Chilliwack River Action Committee
City of Abbotsford
Cochrane Construction
Community Fisheries Development Centre – Surrey
Community Futures Development Corporation of Sun Country
District of Mission
Fish in Need Society
Fraser River Selective Harvest Guild
Fraser Valley Outdoor Adventures
Fraser Valley Regional District
Harrison Building Bridges Community Enhancement Society
Inch Creek Hatchery
Kent Outdoor Sports
Langley Environmental Partners Society
Marshall Creek Streamkeepers
Ministry of Environment, Lands and Parks
Mission School District #75
Northwest Naturescapes
Scowlitz First Nation
Skwah First Nation
Soowahlie First Nation
Stave Valley Salmon Enhancement Society
Sto:lo Development Corporation
Sto:lo Nation
Vedder River Habitat Society
Watershed Alliance of Chilliwack
Yale First Nation
Acer Environmental Contracting
Aggregate Producers Association of BC
BC Hydro
BC Conservation Foundation
Canadian Forest Products
Cascade Contracting Ltd.
Central Valley Naturalists
Chehalis First Nation
Chilliwack Vedder Habitat Restoration Society
Chilliwack Hatchery
Chilliwack River Valley Ratepayers Association
CEJ Mussell Enterprises Inc.
Fisheries and Oceans Canada
District of Chilliwack
Environment Canada
Fraser Basin Council
Fraser River Fishermen Society
Fraser Valley Salmon Society
Fred's Custom Tackle
Hope/Fraser Canyon Community Development Society
International Forest Products – Hope Division
Lakahahmen First Nation
Mennonite Central Committee/Ecoworks
Maritime Labour Council
McConnell Creek/Hatzic Prairie Ratepayers Association
Ministry of Fisheries
Northwest Naturescapes
Pacific Initiatives
Pepin Brook Streamkeepers
Robin B. Clark Inc.
Streamside Environmental Consulting
Seabird Island First Nation
Skway First Nation
Squamish River Watershed Society
University College of the Fraser Valley
Village of Harrison Hot Springs
Western Economic Diversification
West Creeks Watershed Society
Yale First Nation Fisheries Stewardship Authority

Projects

ENVIRONMENTAL ACCOUNT .... TOTAL 14

INVENTORY & MAPPING 2
Miami River Biophysical Summer Habitat and Fish Inventory Survey
Operation Creeksave

STOCK/HABITAT ASSESSMENT 2
Chilliwack/Vedder Watershed Smolt Migration Survey and Restoration – Phase 3*
Pepin Brook Fish Trapping*

HABITAT RESTORATION 6
Pepin Brook Enhancement Project*
Fraser Valley Millennium Riparian Planting
Maria Slough Flow Restoration
Stave 2000
Spring Riparian Planting
Big Silver Creek LWD/Off Channel Habitat

EDUCATION & PUBLIC AWARENESS 2
Chilliwack/Vedder Signage
River Watch Program

STEWARDSHIP & COMMUNITY PLANNING .. 2
Fisheries/Agricultural Stewardship Project
Community Stewardship Program for the Tri-Watershed Area

*indicates projects profiled on opposite page

An ongoing netting program will eventually capture largemouth bass and remove this danger to coho salmon and cutthroat trout as well as dwindling species such as the Salish sucker and the Nooksack dace.

Trapping cutthroat trout, largemouth bass and bullfrogs at head of Salish Creek in Abbotsford.

Practising stewardship in agricultural areas

Finding the right way to restore fish habitat in a stream that's surrounded by agricultural fields is not easy. The Chilliwack/Vedder Habitat Committee, however, achieved this by involving landowners early in the design stage of the Salwein Watershed Project and by keeping them informed at all stages and welcoming their input.

During the year-long undertaking, which also involved counting coho and steelhead smolt, project staff built 6 overwintering ponds, 1.5 kilometres of spawning channels and 3 beaver dam bypasses. In addition, with the help of 20 volunteers, they planted 800 native trees.

Trapping downstream from the project shows that the number of migrating coho smolt in 2000 was more than double the 1999 figure. In the future, these increased salmonid populations will boost the area's sport fishing and ecotourism potential.

PARTNER: Chilliwack/Vedder Habitat Committee

Fisheries Renewal BC Investment: $60,900

FINANCIAL ACCOUNT	
Fisheries Renewal BC Approved Investments ($)	484,563
Other Investments ($)	317,162
Total Investments ($)	801,725
In-Kind Contributions (estimated $)	316,459
ECONOMIC DEVELOPMENT ACCOUNT	
Jobs Created – #/person-days	135/4984
Volunteer Contribution – days	1943
EMPLOYMENT EQUITY ACCOUNT	
Fisheries Workers	29
Youth	62
Women	50
Aboriginal Persons	34

Non-native fish are not friendly

In 1992, a gravel extraction operation created three large ponds at the head of Salish Creek in Abbotsford. The ponds soaked up sunlight, raising the temperature of the stream so much that native fish were unable to survive in the water. In addition, someone had the not-so-smart idea of introducing largemouth bass, a non-native species that attacks other fish, to the ponds.

Salish Creek is a tributary of Pepin Brook which flows across the international border into the Nooksack River. The solutions to this series of afflictions to Salish Creek demanded innovative thinking and lots of willing hands. Fortunately both were in good supply.

The project's partners, which included the University of British Columbia, the City of Abbotsford and two roadbuilding companies, decided that the best way to lower the ponds' temperature was to reduce their surface areas by two-thirds. They achieved this by lowering water levels. In addition 60 volunteers spent two days planting over 700 shading trees as well as willow and cottonwood shoots around the ponds. Tree root wads and boulders placed within the ponds created fish habitat.

To enable native fish to live in the ponds and the stream's headwaters entails ridding the water of the largemouth bass. An ongoing netting program will eventually capture them and remove this danger to coho salmon and cutthroat trout as well as dwindling species such as the Salish sucker and the Nooksack dace. A fish fence downstream from the ponds prevents the bass from entering the Pepin Brook system.

PARTNER: Pepin Brook Streamkeepers

Fisheries Renewal BC Investment: $12,128

Trapping cutthroat trout, largemouth bass and bullfrogs at head of Salish Creek in Abbotsford.

Practising stewardship in agricultural areas

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PARTNER: Pepin Brook Streamkeepers

Fisheries Renewal BC Investment: $12,128

Haida Gwaii Marine Resources Group Society

Masset

Haida Gwaii Marine Resources Group Association

ADMINISTRATIVE PARTNER

Partners

Graham Island Advisory Planning Commission
Moresby Island Management Committee
Queen Charlotte/Skidegate Landing Management Committee
Council of the Haida Nation
Village of Masset
Old Massett Village Council
Skidegate Band Council
Village of Port Clements

Projects

ENVIRONMENTAL ACCOUNT .... TOTAL 18

INVENTORY & MAPPING 5
GPS Spawning Habitat Mapping and Digital Orthophotos for Upper Survey Creek
Yakoun Chinook Spawner Estimate
Nadu River Coho Counting Fence*
Tlell River Stream Guardian and Monitoring Program*
1:20,000 Reconnaissance Fish and Fish Habitat Inventory of Mayer River Watershed – Phase 1-2

STOCK/HABITAT ASSESSMENT 4
Coho AUC Escapement Monitoring
Juvenile Coho Assessment on Datlamen and Nadu*
Assessment of Skidegate Inlet and Hecate Strait Streams
Stream & Fish Stock Assessment in Upper Baxter Creek

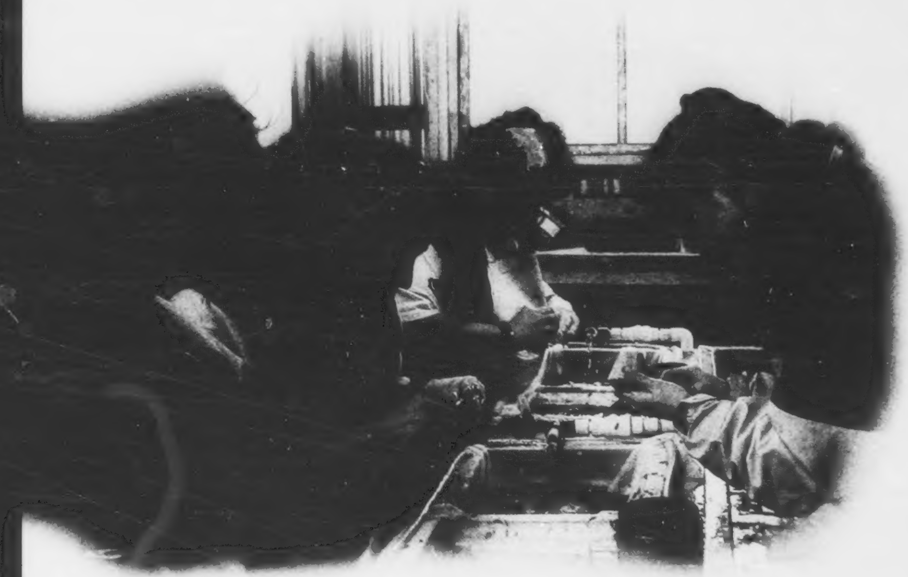
STOCK ENHANCEMENT 4
Pallant Creek Hatchery Expansion*
Coho Netpen Monitoring and Assessment
Transport Tank for Fry and Adult Salmon
Alliford Bay Hatchery Dry Storage

EDUCATION & PUBLIC AWARENESS 3
Fish Delkatla Wildlife Sanctuary Salmon Educational Display Project
Streamkeepers Outings*
Fisheries Resource Centre – Phase 2

STEWARDSHIP & COMMUNITY PLANNING .. 1
Classification of Watercourses in the Tlell River Watershed

OTHER 1
Monitoring of Fish Habitat Restoration Projects

***indicates projects profiled on opposite page**



Working at the Pallant Creek Hatchery.

FINANCIAL ACCOUNT	
Fisheries Renewal BC Approved Investments ($)	400,000
Other Investments ($)	504,188
Total Investments ($)	904,188
In-Kind Contributions (estimated $)	45,745
ECONOMIC DEVELOPMENT ACCOUNT	
Jobs Created – #/person-days	128/3289
Volunteer Contribution – days	96
EMPLOYMENT EQUITY ACCOUNT	
Fisheries Workers	51
Youth	17
Women	37
Aboriginal Persons	46

Counting the juvenile fish.

Pallant Creek Hatchery Expansion

Every year the Pallant Creek Hatchery collects millions of salmon eggs and rears fry. The facility not only employs residents year-round but is improving the fishery around the Haida Gwaii/Queen Charlotte Islands to the benefit of commercial, recreational and Haida First Nation fishermen. The expansion program will improve the hatchery's productivity and cost-efficiency.

In 2000/2001, the hatchery boosted production of coho, chum and chinook salmon. It collected 30 million Pallant Creek and Mathers Creek chum eggs, which reflected a capacity increase of 20 per cent. In addition, the hatchery collected and incubated 910,000 coho eggs and reared the resulting fry. The project also includes raising more than 400,000 coho fry within netpens in a local lake. An electric fish lift, installed at the hatchery's fence at Pallant Creek, has improved labour and cost efficiency.

PARTNER: Haida Tribal Society, Haida Fisheries Program

Fisheries Renewal BC Investment: $100,000

First steps to understanding salmon behaviour

In 2000/2001, the North Graham Island Streamkeepers focussed their attention on Nadu River and Datlamen Creek, which flow into Masset Inlet and Masset Sound on North Graham Island. The society's goals are to understand salmon by assessing habitat and stocks with a view to developing a fuller knowledge of all of the fish's life stages.

The streamkeepers gathered information on the density of juvenile coho populations in the two streams. The data collected is a starting point for monitoring future trends.

Another part of the project involved setting up an adult coho counting fence on the Nadu River and training local residents to operate it. The information collected will make the Nadu the most well understood of all streams on the east side of Masset Sound and it will be the indicator for determining ideal coho numbers in neighbouring streams.

PARTNER: North Graham Island Streamkeepers

Fisheries Renewal BC Investment: $32,413

Haida Salmon. Reprinted with kind permission of the artist, Harold Yeltatzie.

Explaining the how-to's of stream restoration

Hecate Strait Streamkeepers have been working on salmon renewal initiatives for more than 20 years. To educate local residents about their work, they organized trips to four watersheds and streams where they described stream restoration techniques, salmon behaviour, stream characteristics and watershed ecosystems. One trip focussed on Government Creek which flows through the only unlogged watershed left in Skidegate Inlet. This gave participants an understanding of the elements of a pristine watershed and how salmon can thrive in the wild.

On the MacMillan Creek visit, the Streamkeepers described how they had restored fish habitat along the streams. The other two trips focussed on the biological impacts from logging as well as mitigation measures to lessen those effects.

PARTNER: Hecate Strait Streamkeepers

Fisheries Renewal BC Investment: $3707

Tlell River Stream Guardian and Monitoring Project

As part of its ongoing work collecting data on the Tlell watershed in the southeast part of Graham Island, in 2000/2001 the Tlell Watershed Society continued with its sample site monitoring for juvenile fish density, undertook a creel survey of anglers on the lower Tlell and started a stream guardian program. Combined with the information gathered from the adult fish counting fence, the Society is confident that it will soon have the essential baseline data for ecologically responsible management of the watershed's resources.

PARTNER: Tlell Watershed Society

Fisheries Renewal BC Investment: $18,905

Counting the juvenile fish

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Fisheries Renewal BC Investment: $100,000

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Lower Mainland Regional Delivery Partner Group

Surrey

Pacific Employment and Environmental Initiatives Cooperative Association ADMINISTRATIVE PARTNER

Partners

- Alouette River Management Society
- BC Watershed Stewardship Alliance
- Community Fisheries Development Centre –Vancouver
- GVRD
- Heritage Forests Society
- Kanaka Education and Environmental Partnership Society
- Langley Environmental Partnership Society
- Steelhead Society of BC
- T. Buck Suzuki Environmental Foundation
- Blueways Program, City of Vancouver
- Burns Bog Conservation Society
- EVS Environmental Consultants
- Katzie First Nation
- Musqueam Band
- Pacific Streamkeepers Federation
- BC Conservation Foundation
- Community Fisheries Development Centre – Richmond
- Eagle Creek Streamkeepers
- Seymour Salmonid Society
- North Shore Streamkeepers
- Scotch Pond Heritage Cooperative
- B.C.I.T. – Fish, Wildlife & Recreation Program
- BC Wildlife Federation – Wetland Keepers
- Blueridge Community Association
- Como Watershed Group
- Coquitlam River Watershed Society
- Fisheries and Oceans Canada
- Ecoworks
- Hoy-Scott Creek Streamkeepers
- Little Campbell Watershed Society
- Nicomekl Enhancement Society
- North Fraser Salmon Assistance Project
- P.K.I. Warehouse Park Corporation
- Port Moody Ecological Society
- Rivershed Society of BC
- Salmon River Enhancement Society
- Sockeye Canada
- Vancouver Salmon and Stream Society
- United Native Nations
- Abbotsford Stream Conservation Committee
- Alliance Tribal Council
- Aquatic Resources Ltd.
- BC Wetlands Society
- BCIT Cooperative Association
- Beecher Creek Streamkeepers
- Bertrand Creek Enhancement Committee
- Brittania Heritage Shipyards Society
- Byrne Creek Streamkeepers
- City of Surrey Environmental Programs
- Delta Chamber of Commerce
- Dillon Consulting
- Douglas College Institute of Urban Ecology
- Falaise Neighbourhood Committee
- Fenn Christian and Associates
- Fraser River Estuary Stewardship
- Friends of False Creek
- Hyde Creek Hatchery
- Hyde Creek Streamkeepers
- Kwayhquitlam First Nation
- Langley Field Naturalists Society
- Lubbocks Creek Streamkeepers
- Marlin Ecological Consulting Ltd.
- Marine Educational Services
- Meets Provincial Council
- Ministry of Environment, Lands and Parks
- Noons Creek Hatchery
- Orphaned Wildlife
- Omni Video Productions
- Outdoor Recreational Council of BC
- Pacific Community Enhancement Society
- Pacific Initiatives
- RESCUE-Residents of Elgin Stopping Creek Urbanization Effects
- River Springs Salmon Enhancement
- Rivers Inlet Restoration Society
- Robin Clark and Associates
- Salmon River Watershed Partnership
- Sapperton Fish and Game Club
- Serpentine Enhancement Society
- Sigma Engineering
- Southern Area E Gillnetters Association
- Southlands Ratepayers Association
- Squamish First Nation
- Stream of Dreams Association
- Surrey Aboriginal Cultural Society
- T. Buck Suzuki Community Riparian Nursery
- Target Canada Production
- Templeton Mini School
- TLC-The Land Conservancy of BC
- The Stoney Creek Heritage Society
- Tsawwassen Band
- Tsleil-Waututh First Nation
- University of British Columbia
- Urban Systems
- West Van Streamkeepers
- Yorkson Watershed Stewardship Committee

FINANCIAL ACCOUNT	
Fisheries Renewal BC Approved Investments ($)	357,392
Other Investments ($)	326,138
Total Investments ($)	683,530
In-Kind Contributions (estimated $)	1,145,663
ECONOMIC DEVELOPMENT ACCOUNT	
Jobs Created – #/person-days	167/3638
Volunteer Contribution – days	3201
EMPLOYMENT EQUITY ACCOUNT	
Fisheries Workers	24
Youth	40
Women	68
Aboriginal Persons	13

Projects

ENVIRONMENTAL ACCOUNT .... **TOTAL 40**

INVENTORY & MAPPING **10**

Watershed Data Compilation and Volunteer Training
Community Resource Centre
Delta Streams III
Delta Streams III Part 2
Eagle/Stoney/Silver Creek Upper Watershed Mapping Project
Lower Pitt River Monitoring
Kanaka Creek Watershed Education*
North East Coquitlam Mapping Project
Indian River Habitat Enhancement Project
Yorkson Watershed Health Indicators

STOCK/HABITAT ASSESSMENT **1**

Alouette Bell Cor Net Pen Project

HABITAT RESTORATION **8**

Como Creek Enhancement
Steveston Island Estuary Clean-up and Restoration
McAdam Creek Restoration and Inventory
Nicomekl Boardwalk Phase 2*
South Alouette River Habitat Restoration
Millennium Riparian Planting and Prescription Service
Green Links Tri-Cities Project
Homestead Habitat Enhancement 2000

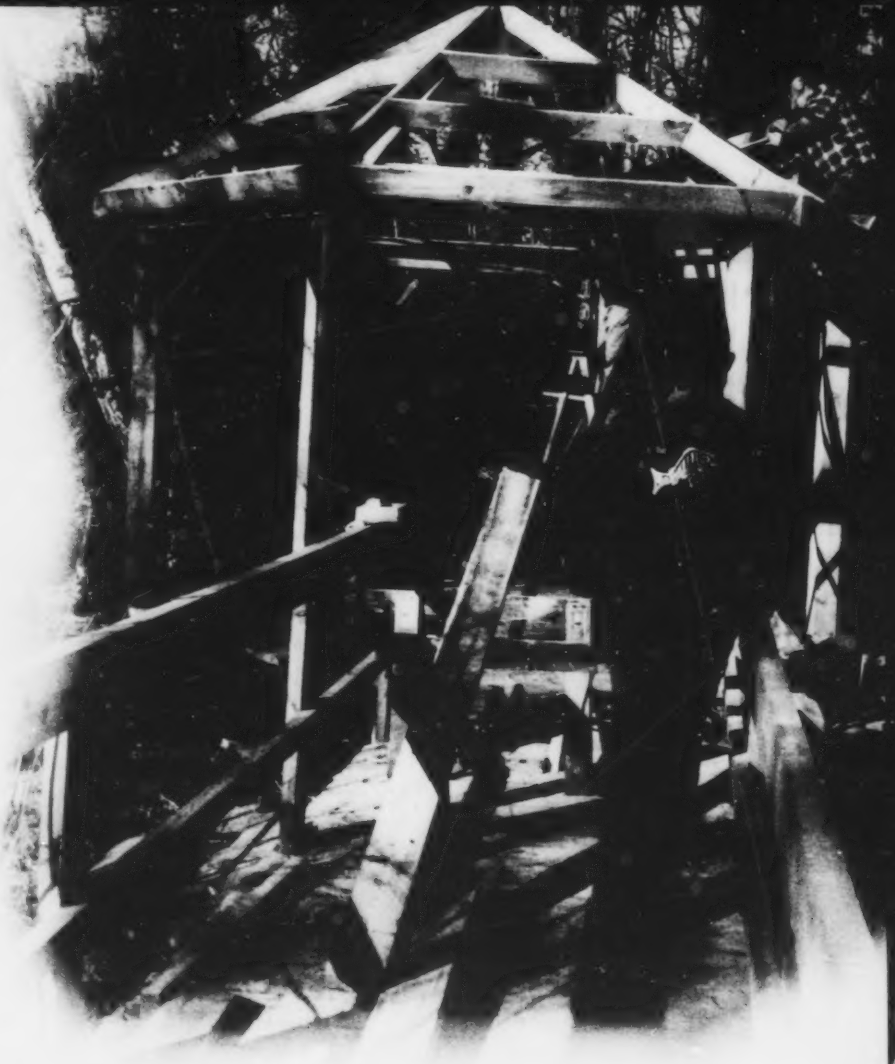
EDUCATION & PUBLIC AWARENESS **15**

Skill Building Conference for Environmental Partners*
Stream It Phase 2
Gently Down the Seymour Education Program
Fridge Magnets-Emergency Response Agencies
Water Quality Workshop
School Nature Programs
Stream of Dreams Watershed Education Murals – Planning Phase
Stream of Dreams Mural Project Part 2
Stream of Dreams Mural Project Part 3
Spirit of the Salmon Swim 2000
Lower Mainland On-Line Album
Watershed Education Tour
Watershed Inventory and Public Awareness
Public Awareness and Inventory of Upper Pitt River
Field Trips Using Salmon

STEWARDSHIP & COMMUNITY PLANNING .. **6**

Tri-Cities Environmental Stewardship Calendar
Watershed Park and Area Daylighting and New Streamcourse
Canadian GrateMates
Rivershed Education Presentation Programs
Centre Creek Streamkeepers
Centre Creek Streamkeepers Part 2

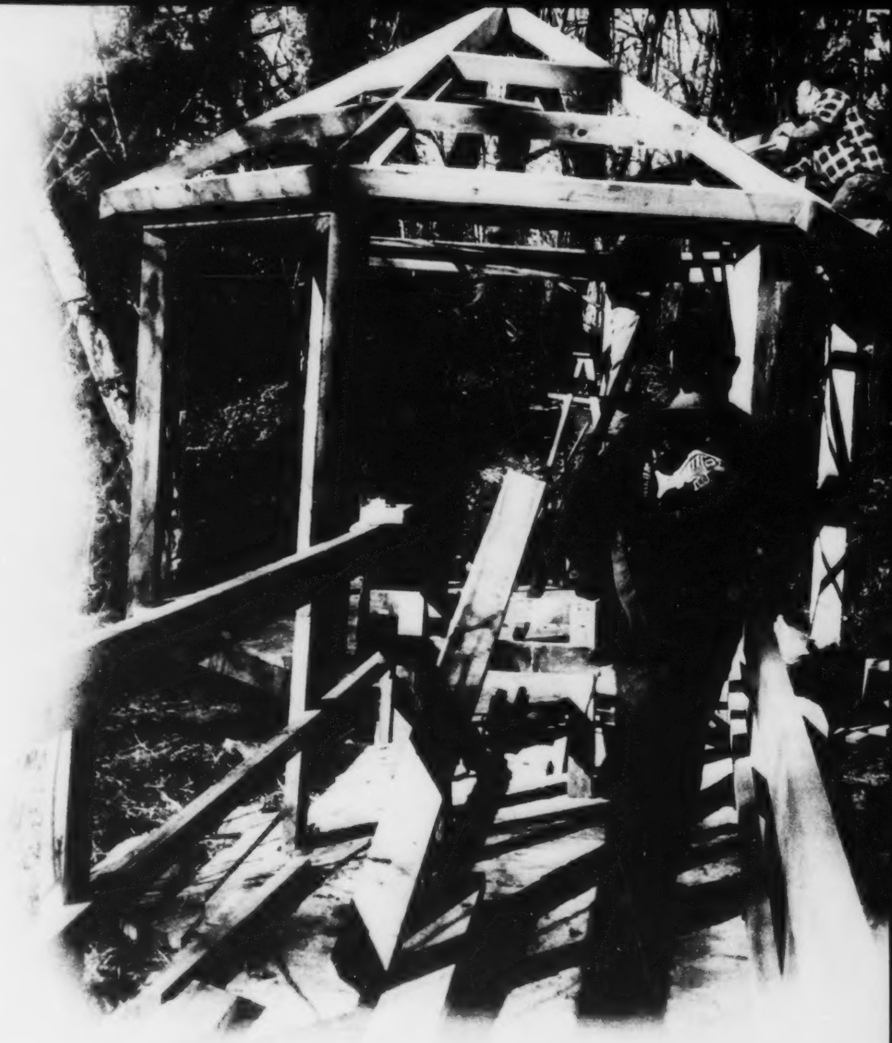
* indicates projects profiled on two following pages



Constructing the boardwalk for public viewing along the Nicomekl River in Surrey.

POTENTIAL HARMS TO FISH HABITAT

Urban development—pollution from storm drains, loss of streambank shrubs and plants, degradation of streambed by erosion and sedimentation
Forestry—too much sediment flowing into streams, debris clogging streams
Agriculture—nutrient-rich water runoff causing oxygen depletion, cattle-caused erosion
Industry—chemical discharges into rivers



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ENVIRONMENTAL ACCOUNT .... TOTAL 40

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STEWARDSHIP & COMMUNITY PLANNING .. 6

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What is the status of streams in the Lower Fraser Valley?

•15 per cent are lost – culverted, paved over, drained or filled in – and 71 per cent are threatened or endangered – suffering from impacts such as watershed alterations, streamside degradation, vegetation removal and pollution.

•14 per cent are still in a wild state but many of these are on steep mountain slopes and therefore not fish-bearing.

ENVIRONMENTAL TRENDS
IN BRITISH COLUMBIA 2000, P.47

Building organizational skills

The Nicomekl River in the City of Surrey still has viable fish rearing areas, thanks to the dedicated work of the Nicomekl Enhancement Society's members. In 2000, they wanted to allow the public to witness their success by touring their aquatic habitat area but did not know who or how or where to apply for funds to build the necessary infrastructure.

As a first step, the Society approached the Pacific Employment & Environmental Initiatives Cooperative Association (Pacific Initiatives) which realized there were dozens of similar volunteer-run Lower Mainland organizations with the same problem. The solution?—organize a skill-building conference.

Held at the end of October 2000, Pacific Initiatives' two-day conference attracted 92 participants from 60 organizations who attended workshops on such topics as strategic planning, fundraising, goal setting, proposal development and communications. Most importantly, there was a panel comprised of representatives from four fund-providers—Fisheries and Oceans Canada, Fisheries Renewal BC, Friends of the Environment and the BC Conservation Foundation. All found the conference highly informative and rewarding.

And the Nicomekl Enhancement Society found the funding they wanted. They celebrated with a public opening on April 21, 2001. Hundreds of volunteers and school children released 20,000 salmon fry at various points along the new boardwalk which enables the public to visit without damaging the sensitive habitat.

PARTNER: Pacific Initiatives

Fisheries Renewal BC Investment: $6806

Elementary school students looking at Nicomekl River in Surrey from boardwalk vantage point. A safe zone for kids and habitat.

Students from Thomas Haney Secondary School taking a break from streamkeeper training along Kanaka Creek in Maple Ridge.

Looking for steelhead in an urban stream

While the headwaters of Kanaka Creek are in Golden Ears Park, the lower reaches pass through Maple Ridge before entering the Fraser River. Anglers consider the stream to be important rearing habitat for steelhead trout but no studies have determined precisely where they spawn or how productive the stream is.

The Kanaka Education and Environmental Partnership Society (KEEPS) has begun to rectify this lack of information. In 2000/2001, it coordinated two 'floats' along six kilometres of the Kanaka as it flows through the municipality ('floats' are swims by fishery specialists equipped with snorkelling equipment). The swimmers counted the steelhead they encountered to obtain a 'snapshot' of this endangered fish's presence.

Of course, there's more to streamkeeping than counting fish. KEEPS is an active participant in a Sensitive Stream Recovery Plan Committee for the Kanaka. Other committee members, who meet monthly, include government representatives and property owners. The committee is now working on implementing priorities identified in the recovery plan.

Public awareness of the state of Kanaka Creek is also a KEEPS responsibility. In 2000/2001, it arranged 7 community meetings and organized a workshop, which 85 community members attended, on how the Fish Protection Act and other environmental regulations will affect the Kanaka and adjacent areas. KEEPS has mapped and collected habitat data on 20 kilometres of the main stream and tributaries. This information will assist the municipality and regional district in making land use decisions.

PARTNER: Kanaka Education and Environmental Partnership Society

Fisheries Renewal BC Investment: $6065

BRITISH COLUMBIA'S MOST ENDANGERED RIVERS, 2001

Pine River, Northeast BC, – oil pipeline spill and continued long-term release of oil

Britannia Creek, Southwest BC – acid rock drainage from a disused mine

Okanagan River, Southern BC – channelization, riverbank vegetation removal, agricultural run-off

Coquitlam River, Southwest BC – heavy silt and sediment flows from gravel mining operations, industry, urban sprawl, pollution

Fraser River, in particular from Hope to Chilliwack – habitat loss, threatened fish stocks, logging, corridor loss, pollution, industry, gravel extraction

South coast steelhead streams on Vancouver Island and in the Lower Mainland – threatened fish stocks, habitat loss, logging, urbanization, industry

POSSIBLY THREATENED RIVERS TO WATCH

Stoney Creek and **Elgin Creek** – urban development

Taku River – proposed reopening of mine

Sustut River and **Zymoetz River** – Skeena tributaries – increased logging and access

SOURCE: OUTDOOR RECREATION COUNCIL OF BRITISH COLUMBIA

Kanaka Creek, Maple Ridge.

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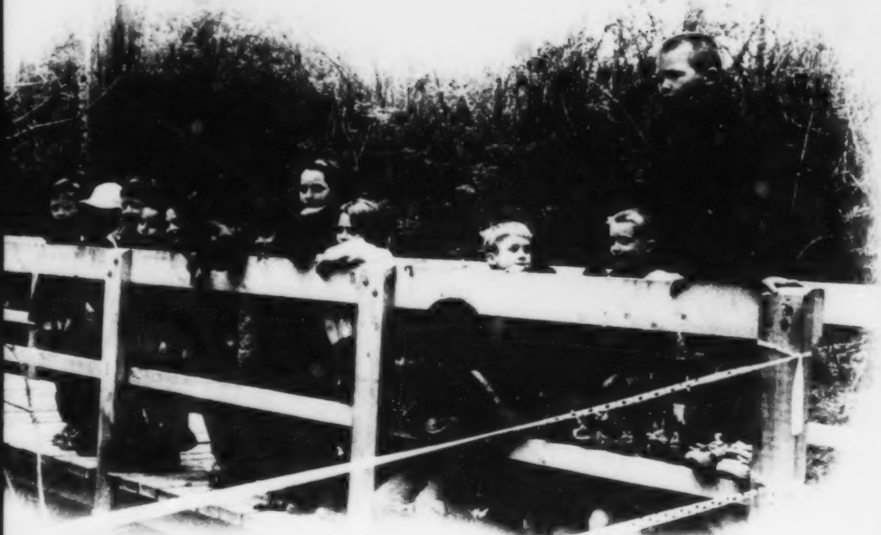

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While the headwaters of Kanaka Creek are in Golden Ears Park, the lower reaches pass through Maple Ridge before entering the Fraser River. Anglers consider the stream to be important rearing habitat for steelhead trout but no studies have determined precisely where they spawn or how productive the stream is.

The Kanaka Education and Environmental Partnership Society (KEEPS) has begun to rectify this lack of information. In 2000/2001, it coordinated two 'floats' along six kilometres of the Kanaka as it flows through the municipality ('floats' are swims by fishery specialists equipped with snorkelling equipment). The swimmers counted the steelhead they encountered to obtain a 'snapshot' of this endangered fish's presence.

Of course, there's more to streamkeeping than counting fish. KEEPS is an active participant in a Sensitive Stream Recovery Plan Committee for the Kanaka. Other committee members, who meet monthly, include government representatives and property owners. The committee is now working on implementing priorities identified in the recovery plan.

Public awareness of the state of Kanaka Creek is also a KEEPS responsibility. In 2000/2001, it arranged 7 community meetings and organized a workshop, which 85 community members attended, on how the Fish Protection Act and other environmental regulations will affect the Kanaka and adjacent areas. KEEPS has mapped and collected habitat data on 20 kilometres of the main stream and tributaries. This information will assist the municipality and regional district in making land use decisions.

PARTNER: Kanaka Education and Environmental Partnership Society
Fisheries Renewal BC Investment: $6065

BRITISH COLUMBIA'S MOST ENDANGERED RIVERS, 2001

Pine River, Northeast BC, – oil pipeline spill and continued long-term release of oil
Britannia Creek, Southwest BC – acid rock drainage from a disused mine
Okanagan River, Southern BC – channelization, riverbank vegetation removal, agricultural run-off
Coquitlam River, Southwest BC – heavy silt and sediment flows from gravel mining operations, industry, urban sprawl, pollution
Fraser River, in particular from Hope to Chilliwack – habitat loss, threatened fish stocks, logging, corridor loss, pollution, industry, gravel extraction
South coast steelhead streams on Vancouver Island and in the **Lower Mainland** – threatened fish stocks, habitat loss, logging, urbanization, industry

POSSIBLY THREATENED RIVERS TO WATCH
Stoney Creek and **Elgin Creek** – urban development
Taku River – proposed reopening of mine
Sustut River and **Zymoetz River** – Skeena tributaries – increased logging and access

SOURCE: OUTDOOR RECREATION COUNCIL OF BRITISH COLUMBIA

Kanaka Creek, Maple Ridge

North Coast Fisheries Renewal Council

Prince Rupert

Community Fisheries Development Centre — Prince Rupert

ADMINISTRATIVE PARTNER

Partners

Tsimshian Tribal Council
Native Brotherhood of B.C.
United Fishermen and Allied Workers Union
Northern Gillnetters Association
Northern Trollers Association
Northern Native Fishing Corp.
Prince Rupert Vessel Owners Association
Prince Rupert Salmon Enhancement Society
Prince Rupert Recreational Fish
Municipality of Prince Rupert
Municipality of Port Edward
Skeena Queen Charlottes Regional District
Oona River Community Association
Chatham Sound Charters
Metlakatla First Nation
Hartley Bay First Nation
Kitkatla First Nation
Lax Kw'Alaams First Nation
Kitasoo First Nation
Kincolith First Nation
Chamber of Commerce
B.C. Deep Sea Fishermen's Union
Community Futures Development Corporation
BC Hydro
Pacific Northern Gas
CN Rail
Prince Rupert Economic Development

Projects

INVENTORY & MAPPING

North Coast Stream Inventory Program*
GIS Database of Salmon Habitat in Gitga'at Territory
North Coast Log Dump Inventory

STOCK/HABITAT ASSESSMENT

North Coast Salmonid Habitat Access Development and Winter Assessment

STOCK ENHANCEMENT

Oona River Hatchery Phase 3
Kloiya Creek Chinook Enhancement #2
Oona River Hatchery Phase 4
Hartley Bay Hatchery Floor

HABITAT RESTORATION

Streamside Vegetation Greenhouse
Habitat Restoration in Kitkiata and Kihess Creeks
Lost Creek Restoration
Silver Creek Fish Habitat Rehab. Phase 2: Survey, Design & Planning

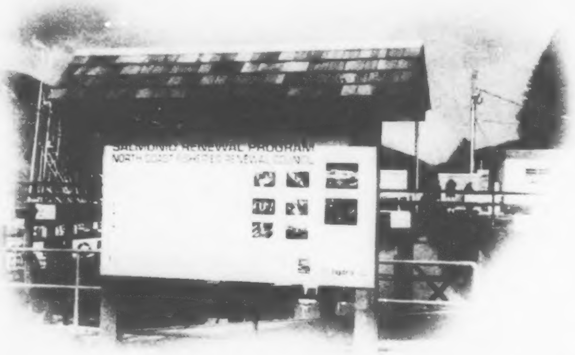
EDUCATION & PUBLIC AWARENESS

Student Streamkeepers Program*
Kitkatla Trail Building
Metlakatla and Port Simpson Field Technician's for Silver Creek Fish Habitat Assessment
NCFRC Kiosk Construction*

STEWARDSHIP & COMMUNITY PLANNING

NCFRC Project Data Analysis

* indicates projects profiled below and on opposite page



This information kiosk, built at Prince Rupert's Rushbrooke floats in spring 2001, keeps the public informed about the activities and projects of the North Coast Fisheries Renewal Council and all its partners throughout the region. Regular updates include information on new projects and identified problem areas. The kiosk is in an area that attracts local residents and tourists as well as commercial and recreational fishers.

PARTNER North Coast Fisheries Renewal Council **Fisheries Renewal BC Investment** **$5670**

FINANCIAL ACCOUNT	
Fisheries Renewal BC Approved Investments ($)	465,824
Other Investments ($)	189,808
Total Investments ($)	655,632
In-Kind Contributions (estimated $)	95,385
ECONOMIC DEVELOPMENT ACCOUNT	
Jobs Created – #/person-days	126/3616
Volunteer Contribution – days	206
EMPLOYMENT EQUITY ACCOUNT	
Fisheries Workers	88
Youth	2
Women	17
Aboriginal Persons	48

Kaien Island Alternate School students planting willows on rip-rap along First Creek in Prince Rupert.

Young minds and old streams

In and around Prince Rupert present and future generations of elementary and high school students have the opportunity to know the basics of streamkeeping, thanks to an ongoing project that's brought schools, colleges, First Nations and fish habitat specialists together. At Kaien Island Alternate School (KIAS) streamkeeping is now part of the curriculum and its students have adopted First Creek in Prince Rupert as their study guide.

The students have eagerly embraced this program. Joy Thorkelson, Fisheries Renewal BC's Chair and a Prince Rupert resident, is impressed with how their enthusiasm has also been reflected in higher student grades. "Both the children and the streams have benefitted from this program," she says. "The students are improving their writing and researching skills because the program motivates them so well. Because of this success, the program is expanding to other schools in the district."

"It's great for the future too. The more we encourage young people to look after the environment and see the value of wild salmon, the more we are producing future generations of habitat and salmon stewards."

The KIAS students have cleaned up First Creek and started a program identifying and testing suspected pollutants entering that stream. They have surveyed, and collected relevant data, on the creek so that they now have reliable records of its water quality, physical characteristics and habitat conditions. From this information they, working with students from Northwest Community College, have started creating a geographic information systems map. Further south, the project started working with youth from the Kitkatla First Nation to do similar studies on a coho salmon stream on Dolphin Island.

All the information collected is now available on an interactive Web site *(www.geocities.com/studentstreamkeepers)* so that students and the community at large can share information and practical tips about keeping streams and watersheds healthy.

PARTNER: North Coast Fisheries Renewal Council

Fisheries Renewal BC Investment: $19,476

Finding the elusive coho

A partnership of five First Nations, three community organizations and the United Fishermen and Allied Workers' Union completed the third year of a four-year project assessing juvenile coho densities in dozens of North Coast watersheds. It's a vitally important project that is attempting to determine what happens to coho stocks over a complete cycle.

In the mid-1990s, there was a drastic decline in the numbers of coho returning to the Upper Skeena River and other northern watersheds. The purpose of this four-year study is to see if juvenile coho numbers are staying approximately the same or declining. Project employees took samples of fish from 65 North Coast streams. The data collected is analyzed to not only compare what happens in one stream from one year to the next but also to compare one stream's performance with another's.

Three-person crews from six outlying communities and Prince Rupert gathered the information over a six-week period. Each crew worked under the guidance of an area manager. Half of those employed on the project came from First Nations villages and they've found that the skills they have developed enable them to find jobs with private sector companies doing forestry and fishery surveys.

Besides collecting and analyzing data, the project accurately located and mapped sampling sites on different streams and made observations about fish habitat conditions. In addition, the project is identifying suitable streams to become the 'indicators' that will most accurately measure northern coho stocks in the future.

Local communities will receive this information in the expectation that they will develop stream stewardship programs. The data will help them undertake technically sound habitat restoration and stock enhancement initiatives.

PARTNER: North Coast Fisheries Renewal Council/Community Fisheries Development Centre

Fisheries Renewal BC Investment: $138,700

North Coast Fisheries Renewal Council

Prince Rupert

Community Fisheries Development Centre — Prince Rupert

ADMINISTRATIVE PARTNER

Partners

Tsimshian Tribal Council
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Chamber of Commerce
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BC Hydro
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Prince Rupert Economic Development

Projects

ENVIRONMENTAL ACCOUNT .... TOTAL 17

INVENTORY & MAPPING 3

North Coast Stream Inventory Program*
GIS Database of Salmon Habitat in Gitga'at Territory
North Coast Log Dump Inventory

STOCK/HABITAT ASSESSMENT 1

North Coast Salmonid Habitat Access Development and Winter Assessment

STOCK ENHANCEMENT 4

Oona River Hatchery Phase 3
Kloiya Creek Chinook Enhancement #2
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EDUCATION & PUBLIC AWARENESS 4

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NCFRC Kiosk Construction*

STEWARDSHIP & COMMUNITY PLANNING .. 1

NCFRC Project Data Analysis

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NORTH COAST FISHERIES RENEWAL COUNCIL

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PARTNER: North Coast Fisheries Renewal Council/Community Fisheries Development Centre

Fisheries Renewal BC Investment: $138,700

Northwest Stewardship Society

Terrace

Northwest Stewardship Society ADMINISTRATIVE PARTNER

Partners

Kitamaat Village Council
Terrace Salmonid Enhancement Society
Kitsumkalum Band Council
Northwest Community College
Northwest Watershed Enhancement Society
Skeena Cellulose Ltd.
North West Branch of Steelhead Society of B.C.
Sierra Club
Fisheries and Oceans Canada
Gitksan and Wet'suwet'en Watershed Authorities
Gitanyow Fisheries Authority
Gitsegukla Economic Development Society
Suskwa Restoration Society
Bear River Salmonid Enhancement Society
Terrace Rod & Gun Club
Sik-e-Dakh Developers Society
Haisla Fisheries Commission
Kitselas Band Council
Fisheries and Oceans Canada

Projects

ENVIRONMENTAL ACCOUNT .... TOTAL 21

INVENTORY & MAPPING 4
Juvenile Coho Synoptic Survey – Cranberry River
Smolt Counting Fence for Kispiox River Tributaries
Kitwango Sockeye Smolt Trap
Nass Summer Run Steelhead Estimates

STOCK/HABITAT ASSESSMENT 6
Anderson Creek Culverts Topographic Survey
Anderson Creek Off/Channel Topographic Survey
Suskwa River Coho Initiative
Kitwanga Chinook Stock Assessment
Cranberry River Juvenile Steelhead and Stock Assessment
Assessment of the Distribution of Adult Coho Affected by Beaver Dams and Collapsed Bridges

HABITAT RESTORATION 7
Clear Creek Eastern Side Channel Outlet
Clay Bank Slump Restoration Plan
Clore River Slide*
Habitat Enhancement of Bear River Tributaries*
Killutsal Creek Rearing Pond
Sik-e-Dakh Creek Restoration
Ripley Creek-Water Quality, Habitat Enhancement and Steward

EDUCATION & PUBLIC AWARENESS 2
Community Awareness in Resource and Watershed Stewardship
Web Site for Terrace Kitimat Partners for Salmonids

OTHER 2
Kitimat River Stewardship Program
Upper Skeena Water Quality/Quantity Study

*indicates projects profiled on opposite page

Top of Clore Slide above Clore River. The Terrace & District Angling Guides Association wants to stabilize the slide to reduce sedimentation in the river.

FINANCIAL ACCOUNT	
Fisheries Renewal BC Approved Investments ($)	380,000
Other Investments ($)	173,254
Total Investments ($)	553,254
In-Kind Contributions (estimated $)	74,004
ECONOMIC DEVELOPMENT ACCOUNT	
Jobs Created – #/person-days	106/2235
Volunteer Contribution – days	133
EMPLOYMENT EQUITY ACCOUNT	
Fisheries Workers	23
Youth	28
Women	36
Aboriginal Persons	47

Salmon swimming upstream through breach in beaver dam on Clements Lake Creek, near Stewart.

A landslide that keeps on sliding

About ten kilometres upstream from where the Clore River flows into the Zymoetz (which flows into the Skeena above Terrace) there is a 50-year-old landslide that simply keeps on dumping earth and rocks into the water. After heavy rains this slide is the major reason that both the Clore and the Zymoetz turn cloudy; sediment sinks to the riverbed, damaging salmon spawning beds and clogging fish's gills.

Unfortunately, unlike most landslides, the 500x200-metre Clore Slide doesn't stabilize—naturally seeded vegetation doesn't seem able to put down deep enough roots to stop earth movement. In 1978, a two-day downpour increased the slide's size and flow, causing great concern to the region's recreational fishers and fisheries biologists.

In 2000, the Terrace & District Angling Guides Association worked with a consulting geoscientist to come up with affordable remedies for the slide. Their recommended long-term plan will direct downhill water flow away from the slide to slow the movement of earth and rocks and enable vegetation to take root. The next step is to seek funding to pay for this work which, if successful, will enhance fish habitat downstream and improve recreational and commercial fishing.

PARTNER: Terrace & District Angling Guides Association

Fisheries Renewal BC Investment: $9089

Busy beavers block Bear River tributaries

For 20 years two beaver dams had prevented sockeye salmon from returning up Connex Creek, a tributary of the Bear River near Stewart. Fortunately, in 2000 they moved away and the Bear River Salmonid Enhancement Society (BRSES) was able to organize the removal of the dams. Their efforts were rewarded in the fall by the sight of sockeye once again spawning in the lake above the creek.

Another beaver dam on Clements Lake Creek was still active so, during the salmon runs, BRSES staff monitored it daily and breached the dam whenever it blocked salmon passage. Beavers being beavers, of course, repaired the dam as frequently as workers put a hole in it.

The Bear River, which flows into the head of the Portland Canal from Meziadin Lake, has several salmon-bearing tributaries in its lower reaches which BRSES is mapping and surveying. It has established permanent sampling sites for surveying juvenile salmon on five streams and identified six more with spawning populations which are due for surveying in 2001.

Much of this work is pointless if people are not aware of it. BRSES is working with the local elementary school on storm drain marking and organizing field trips as well as establishing Salmonids in the Classroom activities. Society members made a presentation to Stewart's Mayor and Council about their projects. Evidently impressed by these activities, the District of Stewart is constructing kiosks for BRSES to inform the public about its work in 2001.

PARTNER: Bear River Salmonid Enhancement Society

Fisheries Renewal BC Investment: $20,115

Cutthroat trout has the greatest percentage of extinct stocks (13 per cent) as well as the highest proportion (80 per cent) of stocks whose status is unknown.

ENVIRONMENTAL TRENDS
IN BRITISH COLUMBIA 2000, P.44

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Nuu-Chah-Nulth/West Coast Vancouver Island Regional Aquatic Management Society (RAMS)

Port Alberni

Nuu-Chah-Nulth/West Coast Vancouver Island Regional Aquatic Management Society (RAMS) ADMINISTRATIVE PARTNER

Partners

Nuu-chah-nulth Tribal Council
Alberni-Clayoquot Regional District
West Coast Sustainability Association
Area G Troll Fisheries Association
Ahousaht First Nation
Uchucklesaht First Nation
Village of Tahsis
Ucluelet First Nation
Alberni-Clayoquot Economic Development Commission
Comox-Strathcona Regional District/Nootka Resources Board
Ditidaht First Nation
Hesquiaht First Nation
Tofino Enhancement Society
Thornton Creek Enhancement Society
Mowachaht/Muchalaht First Nation
City of Port Alberni
Alberni-Clayoquot Community Futures
Nootka Sports Fish Advisory Board
Scandic Seafoods
Alberni Valley Enhancement Association
Ma'Mook Economic Development Corporation
Ecotrust Canada
Bamfield Streamkeepers
Alberni Environmental Coalition
Village of Gold River
Alberni Valley Sport Fishing Association
Simon Fraser University
Alberni Clayoquot Regional District

Projects

ENVIRONMENTAL ACCOUNT .... **TOTAL 34**

INVENTORY & MAPPING 2
Alberni Mapping and Inventory
Sugsaw Creek Chum Marking

STOCK/HABITAT ASSESSMENT 4
Hutchison Creek Assessment Project
Yaakhsis Creek Planning and Restoration
Lost Shoe Creek Riparian Assessment
Southern Region Assessments

STOCK ENHANCEMENT 4
Kennedy Lake Sockeye Incubation – Phase 3
Zeballos River Salmonid Enhancement Project*
Henderson River Fish Fence and Henderson Lake Hatchery
Cypre River Hatchery and Wild Coho Dry Distribution

HABITAT RESTORATION 18
Salmon Creek Restoration Project
Plested Creek Summer Rearing*
Lost Shoe/Sandhill Creek Restoration
Collin's Farm Rearing Pond
Urban Streams Restoration
Mooyah River Side Channel
Kootowis Creek Riparian Restoration
Beaver Creek Restoration
Dry Creek Restoration
Cypre River Channel Complexing
Kitsucksis Creek Restoration
Muriel Creek Restoration
Sproat Watershed Enhancement
Stump Creek Side Channel
Easy Creek Watershed Restoration Project
Zeballos Estuary Side Channel
Lens Creek Side Channel
Guise Creek Watershed Bioengineering

EDUCATION & PUBLIC AWARENESS 2
Kootowis/Staghorn Creek Fishery Restoration Interpretative Trail and Public Education Project
Kennedy Lake Watershed Awareness

STEWARDSHIP & COMMUNITY PLANNING .. 2
Stamp Somass Watershed Plan
Bamfield Region Assessments

OTHER 2
Jump Off Bridge Operation Maintenance
RAMS 2000/2001 SRP Technical Review

***indicates projects profiled on opposite page**

Local resident Martin Byrne, an enthusiastic supporter of the Plested Creek summer rearing pond near Port Alberni, starting the riparian planting.

FINANCIAL ACCOUNT	
Fisheries Renewal BC Approved Investments ($)	598,759
Other Investments ($)	965,407
Total Investments ($)	1,564,166
In-Kind Contributions (estimated $)	881,288
ECONOMIC DEVELOPMENT ACCOUNT	
Jobs Created – #/person-days	247/5303
Volunteer Contribution – days	654
EMPLOYMENT EQUITY ACCOUNT	
Fisheries Workers	89
Youth	22
Women	27
Aboriginal Persons	84

A holding pond for stranded fry

Each summer Plested Creek near Port Alberni dries up, stranding coho salmon as well as steelhead and cutthroat trout fry. To improve their survival chances, a newly formed stewardship group in the community of Beaver Creek constructed a 300 cubic-metre holding pond, fed by groundwater, into which volunteers will put the juvenile fish.

The pond, which is in a regional park, will also be part of the Salmonids in the Classroom Project for local elementary school classes. Salmon eggs will be given to each student to incubate and later put in the pond. "We really want this project to contribute to the education and stewardship in this community for many years to come," says Phil Edgell, Director, Alberni Valley Enhancement Association. "We're going to do some riparian planting there too and other restoration work such as putting in some gravel and woody debris. It will be a place for the whole community to learn about salmon."

PARTNER: Alberni Valley Enhancement Association

Fisheries Renewal BC Investment: $2391

"When I started in 1985, I think there were only 10 to 12 salmon returning so there was a real need for enhancement...."

The new Zeballos Hatchery. Built by volunteers after the old one collapsed.

Rebuilding salmon stocks—and a hatchery

In the mid-1980s, John Crowhurst decided he needed to do something drastic to help the dwindling stocks of chinook salmon in the Zeballos River on Vancouver Island. So he converted an old logging camp bunkhouse into a fish hatchery and the chinook returns gradually increased each year.

Mr Crowhurst, who has a full-time job with Western Forest Products, looked after the hatchery's two tanks mostly on his own, incubating the eggs in early December and releasing the fry six or seven months later. Early each morning he made sure they had their feed and last thing at night he checked that all was well.

Imagine the shock he felt when one predawn morning in spring 2000, the hatchery building, built at the bottom of a hill on wooden footings, collapsed. Fortunately, he and others were able to rescue most of the fry from the puddles into which they fell and put them in temporary tanks.

Then Mr Crowhurst and volunteers from the town and two First Nation communities nearby started to put up a new building. Western Forest Products donated the lumber and, this time, the 18.5 x 4.5-metre building is on a concrete slab. Twenty volunteers did all the construction work except for the concrete laying and electrical wiring. It was ready in time for the new batch of eggs in December.

The silver lining for the hatchery is that it's capacity has increased from 80,000 smolts to 200,000. There are now four tanks so Mr Crowhurst is planning to enhance coho and steelhead stocks in the Zeballos River and expand his activities to the Little Zeballos River and the Kaouk River. He's also hoping to receive a licence to take eggs from the Zeballos River—until now, the eggs have come from a hatchery on the Conuma River south of Zeballos.

All this dedicated and patient work has resulted in a dramatic recovery of stocks along the Zeballos River. "When I started in 1985, I think there were only 10 to 12 salmon returning so there was a real need for enhancement," says Mr Crowhurst. "In 2000, people swimming along with the fish counted up to 2600 fish." Which just goes to show that, with a little help from their friends, salmon stocks do recover.

PARTNER: Zeballos River Enhancement Project

Fisheries Renewal BC Investment: $15,000

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The new Zeballos Hatchery. Built by volunteers after the old one collapsed.

Rebuilding salmon stocks—and a hatchery

In the mid-1980s, John Crowhurst decided he needed to do something drastic to help the dwindling stocks of chinook salmon in the Zeballos River on Vancouver Island. So he converted an old logging camp bunkhouse into a fish hatchery and the chinook returns gradually increased each year.

Mr Crowhurst, who has a full-time job with Western Forest Products, looked after the hatchery's two tanks mostly on his own, incubating the eggs in early December and releasing the fry six or seven months later. Early each morning he made sure they had their feed and last thing at night he checked that all was well.

Imagine the shock he felt when one predawn morning in spring 2000, the hatchery building, built at the bottom of a hill on wooden footings, collapsed. Fortunately, he and others were able to rescue most of the fry from the puddles into which they fell and put them in temporary tanks.

Then Mr Crowhurst and volunteers from the town and two First Nation communities nearby started to put up a new building. Western Forest Products donated the lumber and, this time, the 18.5 x 4.5-metre building is on a concrete slab. Twenty volunteers did all the construction work except for the concrete laying and electrical wiring. It was ready in time for the new batch of eggs in December.

The silver lining for the hatchery is that it's capacity has increased from 80,000 smolts to 200,000. There are now four tanks so Mr Crowhurst is planning to enhance coho and steelhead stocks in the Zeballos River and expand his activities to the Little Zeballos River and the Kaouk River. He's also hoping to receive a licence to take eggs from the Zeballos River—until now, the eggs have come from a hatchery on the Conuma River south of Zeballos.

All this dedicated and patient work has resulted in a dramatic recovery of stocks along the Zeballos River. "When I started in 1985, I think there were only 10 to 12 salmon returning so there was a real need for enhancement," says Mr Crowhurst. "In 2000, people swimming along with the fish counted up to 2600 fish." Which just goes to show that, with a little help from their friends, salmon stocks do recover.

PARTNER: Zeballos River Enhancement Project

Fisheries Renewal BC Investment: $15,000

Okanagan-Similkameen-Boundary Fisheries Partnership

Penticton

Community Futures Development Corporation of Okanagan-Similkameen ADMINISTRATIVE PARTNER

Partners

Grand Forks Wildlife Association
Kelowna & District Fish & Game Club
Princeton Fish & Game Association
Peachland Sportsman's Association
Vernon Fish & Game Club
South Okanagan Sportsmen's Association
Kalamalka Flyfishers
BC Lakes Stewardship Society
Osoyoos Wildlife Federation
Summerland Sportsman's Association
Keremeos-Cawston Sportsmen Association
Penticton Flyfishers Club
Black Mountain Sportsman Association
Federation of BC Naturalists
Ministry of Environment, Lands and Parks
Fisheries and Oceans Canada
Central Okanagan Regional District
Regional District of Kootenay/Boundary
Town of Osoyoos
Village of Okanagan Falls
Village of Hedley
City of Kelowna
City of Vernon
Town of Midway
Municipality of Summerland
North Okanagan Regional District
Regional District of Okanagan/Similkameen
Town of Oliver
Village of Keremeos
Town of Princeton
District of Lake Country
Town of Grand Forks
Municipality of Peachland
Oceola Fish & Game Club
North Okanagan Naturalist Club
Okanagan Nation Fisheries Commission
Gorman Bros. Lumber Co.
BC Wildlife Federation
Dobson Engineering
Monashee Environmental Consultants
Lonely Loon Flyfishers
Trepanier Creek Linear Park Society
BC Watershed Stewardship Fisheries Commission
Ministry of Forests
BC Fishing Resorts & Outfitters Association
Columbia Environmental Consultants
BC Conservation Foundation
Penticton Flyfishers
Snowy River Resources Ltd.
Jim Springs Trout Farm
Skaha Hatchery
Grand Forks Wildlife Association
Friends of Granby Environmental Society
EBA Engineering
Aqua Resource Management
Okanagan University College
Jewel Lake Environmental Protection Society
The Friends of Mission Creek
Osoyoos Water Quality Protection Society

Projects

ENVIRONMENTAL ACCOUNT .... TOTAL 41

INVENTORY & MAPPING 5

Christina Lake Tributary and Creel Survey
Shingle Creek Kokanee Enumeration Project
Inventory of Non-natural Barriers to Fish Passage
Kokanee Spawner Enumeration on Selected Tributaries in the Okanagan Valley
Baseline Information for Rainbow Trout and Mountain Whitefish within the Similkameen River

STOCK/HABITAT ASSESSMENT 5

Middle Vernon Creek Restoration Plan 2000
Boundary Creek Overview Fish Habitat Assessment
Access Management Planning for Walk-in Lakes
Similkameen Watershed, a Reconnaissance Evaluation
Sutherland Creek Fish Habitat Restoration Project*

STOCK ENHANCEMENT 1

Okanagan Sockeye/Alevin Dev. – Temperature Study

HABITAT RESTORATION 14

Six Mile Creek Weir Replacement
Kokanee Habitat Enhancement in Lower Mission Creek
Jewel Lake Restoration Project (Phase 1)
Lower Mill Creek Restoration & Enhancement at 2430 Hwy 97 North*
Lower Mill Creek Enhancement at Hunter Court*
Shingle Creek Restoration Project
Coldstream Creek Restoration Project
Eneas Lake Habitat Improvement Project
Inkaneep Creek Watershed Restoration
Trepanier Creek in Stream Structures
Shinish Creek Diversion Rehabilitation Project

FINANCIAL ACCOUNT	
Fisheries Renewal BC Approved Investments ($)	570,661
Other Investments ($)	114,516
Total Investments ($)	685,177
In-Kind Contributions (estimated $)	161,890
ECONOMIC DEVELOPMENT ACCOUNT	
Jobs Created – #/person-days	191/2322
Volunteer Contribution – days	489
EMPLOYMENT EQUITY ACCOUNT	
Fisheries Workers	11
Youth	42
Women	42
Aboriginal Persons	31

Upper OK Westside Creeks Restoration
Okanagan Lake Foreshore Protection – Phase 1
Shingle Creek Riparian Fencing – Phase 2

EDUCATION & PUBLIC AWARENESS 7

Fisheries Act Violation Investigation
CHBC TV Stewardship Programming
School Streamside Salmonid Education Program
Trepanier Creek: Salmon Education Panels
Mill Creek Restoration Project at Edwards Road – Signage Phase
"Pachinko" Salmon Education Display
Six Mile Creek School Streamkeepers Programs

STEWARDSHIP & COMMUNITY PLANNING . . 5

Long-term Plan for Penticton and Ellis Creeks
Boundary District Rivers Management Plan
Similkameen River Strategic Planning and Implementation Project
Fisheries Sensitive Urban Development and Growth Workshop
Restoration and Stewardship Plan for Naramata Creek

OTHER 4

Mysis relicta Test Fishery Monitoring
Ensuring Flows for Fish in Okanagan Lake Tributaries
Trout Creek Intake Fish Screen Debris Catcher
Technical Advisement Officer for the OSBFP

* indicates projects profiled on two following pages

The City of Kelowna Environment Youth Team who did most of the restoration work on Mill Creek. (Article overleaf.)

DOS AND DON'TS FOR A HEALTHY STREAM

Do

- leave the streambed as nature designed it
- maintain (or add) a wide strip of native plants alongside the stream
- remove old tires, car batteries, shopping carts, or other foreign debris
- avoid using chemicals anywhere near a stream and keep your septic tank in good working condition
- let water flow unobstructed
- enjoy and protect the natural asset that runs through your neighbourhood

Don't

- disturb fish in your stream
- dig in the stream, change its course, drive through or let livestock trample in it
- remove trees or shrubs closer than 15 metres from stream banks
- remove boulders, gravel, or woody debris from a stream
- ever dump any chemical into a stream or storm drain
- alter water flows without proper permits and expert advice

SOURCE: KANAKA IS FOR K.E.E.P.S., KANAKA CREEK WATERSHED GUIDE, PAGE 16

Upper OK Westside Creeks Restoration
Okanagan Lake Foreshore Protection – Phase 1
Shingle Creek Riparian Fencing – Phase 2

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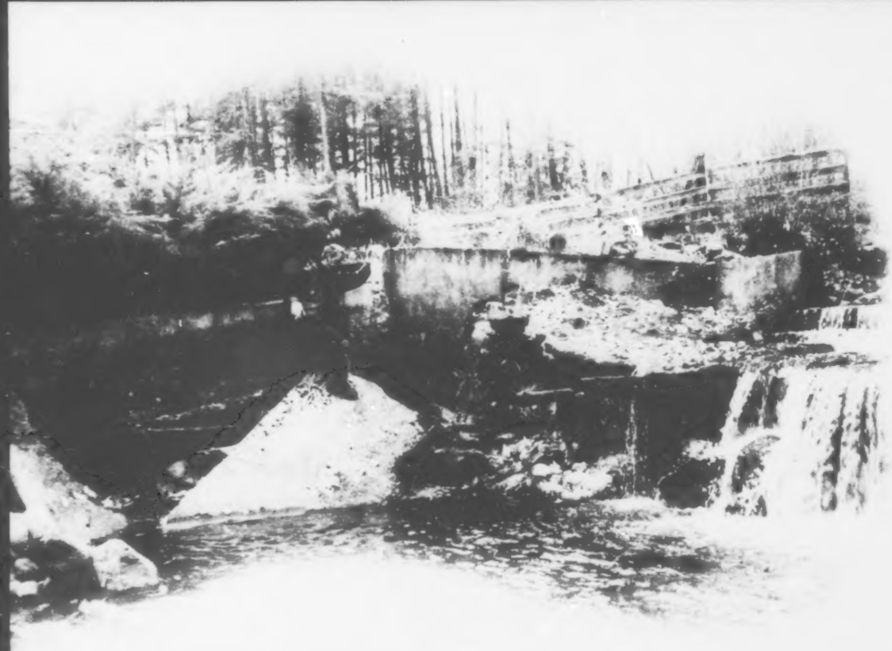

Remains of old weir along Sutherland Creek which runs into Christina Lake

"What's happening to kokanee in Christina Lake? [illegible] a population of 10,000 spawners in the 70s has declined to 1,000 spawners. There has been [illegible] in the lake since [illegible]. "Kokanee are a source of food for these large rainbow trout whose numbers will also probably decline. "The reasons for the kokanee's precipitous decline include urbanization and development causing habitat loss in streams."

Steps Towards a Better Environment

Sutherland Creek is a medium-sized tributary in the south-eastern end of Christina Lake. In the past, the creek's lower two kilometres provided very good spawning habitat for species such as kokanee and rainbow trout. However, forestry activity in the upper watershed combined with urban development in the lower watershed has reduced, habitat quality and quantity.

Instream activity such as the creation of a weir, which historically supplied water along Sutherland Creek, has caused erosion resulting in a loss of vegetation and general loss of fish habitat.

Surveys have indicated there has been a reduction in the number of fish in the creek. Anglers have also reported changes in the fish population assemblage in the lake over the past 50 years.

Funding from FsRBC in 2000/2001 identified specific needs and "prescriptions" to address habitat improvement in the lower reaches. Details of necessary dredging, boulder placement and riparian planting were prepared by biologists and engineers. This next year (2001/2002), with the eager co-operation of landowners, the Christina Lake Stewardship Society will act on these prescriptions, including the restoration of 1.2 km of the watercourse to enhance fish habitat.

The weir, which is now a barrier to fish continuing their upstream route, is to be removed and replaced with pools and riffles. Contractors and volunteers will take part in reconstructing the channel in areas of high priority.

"This project has helped to energize the Christina Lake Stewardship Society since community members have been involved in all aspects," says local founder of the Resource Centre, Brenda LaCroix. "Local businesses and volunteers will be able to finish the work prescription prepared for us by consultants."

The Society's hope, through the much needed restoration of Sutherland Creek, is to enhance spawning grounds for fish by repairing damages the creek has seen in earlier years. This restoration project will influence and enhance fish in the lake for years to come.

PARTNER: Christina Lake Stewardship Society

Fisheries Renewal BC Investment: $10,400

Restoring fish habitat in Kelowna

The City of Kelowna is committing itself to restoring fish habitat within its boundaries. Since 1997, the focus of restoration and enhancement activity has been at 6 sites along Mill Creek with a total length of 2 kilometres. This creek is one of 3 major fish-bearing streams—out of 29 creeks altogether—flowing within Kelowna. With this work Kelowna is showing leadership in correcting the effects of urbanization on fish-bearing watercourses.

In 2000, the City restored a 500-metre length of Mill Creek that passes through property zoned for commercial and light industrial use. The site, a golf course until 1998, lacked riparian vegetation as well as the in-stream rocks and woody debris that fish enjoy. A condition of developing this site was to build a large detention pond to contain and purify stormwater run-off before it enters the creek. There is a 25-metre dedication strip adjacent to the creek that will eventually become part of a linear park.

An "E-team" of young workers, coordinated by a local environmental consulting firm, carried out much of the restoration work. This included building four-off-channel habitat areas, stabilizing the streambanks and enhancing fish habitat with pools, riffles and artificial undercuts. Rotary Club and university student volunteers planted almost 1300 native species along the streambanks to re-establish a healthy riparian zone.

This project is one of several sites that show developers the restoration and enhancement methods they should use to meet the stream protection conditions outlined in the City of Kelowna's Official Community Plan.

In 2001/2002, Kelowna will work on four more restoration projects along Mill Creek and one on another fish-bearing stream, Bellevue Creek. The City is expecting this work will help to restore Okanagan Lake kokanee and rainbow trout populations.

PARTNER: City of Kelowna Environmental Division

Fisheries Renewal BC Investment: $15,265

Forest riparian ecosystems, transitional areas between aquatic and upland forest ecosystems, have an important role in stabilizing stream banks, regulating stream temperature and filtering out potentially harmful debris and pollutants. They are a source of large woody debris that falls into streams, providing structural stability, complexity and nutrients to aquatic ecosystems. At least 12 per cent of the forest land area in British Columbia is riparian.

ENVIRONMENTAL TRENDS IN BRITISH COLUMBIA 2000, P.46

Installing erosion control blankets along Mill Creek in Kelowna. These help to stabilize the banks of new off-channel habitats.

Remains of old weir along Sutherland Creek which runs into Christina Lake.

What's happening to kokanee in Okanagan Lake?

- *Since 1971, Okanagan Lake's population of stream-spawning kokanee has declined by 9 per cent. There has been no angling in the lake since March 1995.*
- *Kokanee are a big source of food for large-lake rainbow trout whose numbers will also probably decline.*
- *The reasons for the kokanee's precipitous decline include urbanization and development causing habitat loss in streams.*

ENVIRONMENTAL TRENDS IN BRITISH COLUMBIA 2000, P.45

Steps Towards a Better Environment

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ENVIRONMENTAL TRENDS
IN BRITISH COLUMBIA 2000, P.46

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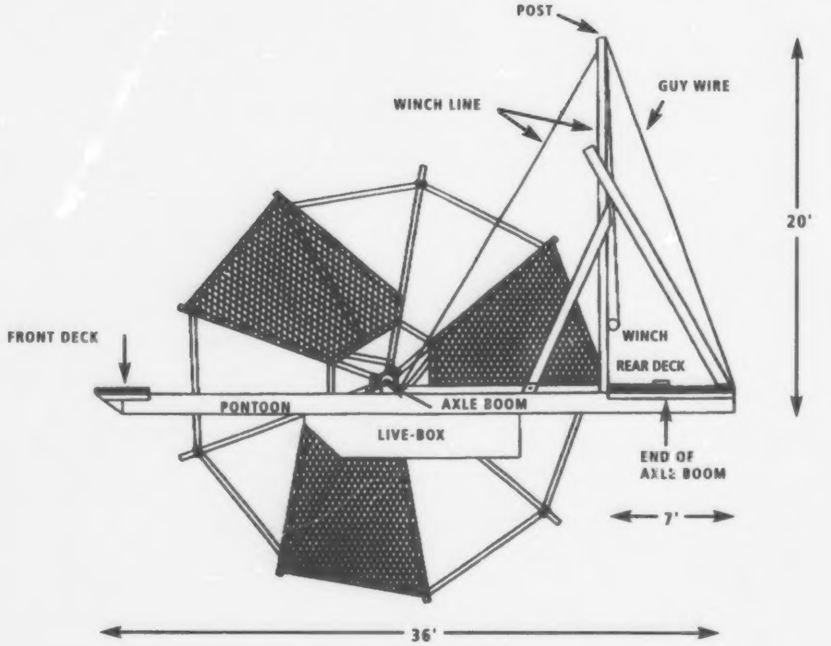
Rivers Inlet Fisheries Renewal Partnership Group

Campbell River

Western Forest Products ADMINISTRATIVE PARTNER



Partners

Western Forest Products
Oweekeno Nation
Interfor
Rivers Inlet/Hakai Pass Sport Fishing Association
Fisheries and Oceans Canada

Projects

ENVIRONMENTAL ACCOUNT .... TOTAL 2

STOCK/HABITAT ASSESSMENT 1
Wannock River Fishwheel Project 2000*

STEWARDSHIP & COMMUNITY PLANNING .. 1
Phase 1-Rivers Inlet Pre-field 2001 Inventory

*indicates projects profiled on opposite page

Fishwheels assess returning salmon numbers and can also harvest species selectively. The prow of the floating fishwheel faces the oncoming current which turns the wheel paddles counterclockwise. The craft is anchored by tying ropes to trees and rocks onshore. Fish caught in the wheel's three nets are carried down a plywood chute (see picture top of opposite page) into the holding tank. Technicians measure for length, tag and take DNA and fish-scale samples from each fish.

FINANCIAL ACCOUNT	
Fisheries Renewal BC Approved Investments ($)	169,134
Other Investments ($)	0
Total Investments ($)	169,134
In-Kind Contributions (estimated $)	70,544
ECONOMIC DEVELOPMENT ACCOUNT	
Jobs Created – #/person-days	10/183
Volunteer Contribution – days	3
EMPLOYMENT EQUITY ACCOUNT	
Fisheries Workers	2
Youth	3
Women	2
Aboriginal Persons	7

WANNOCK RIVER FISHWHEEL STATISTICS

	1999/2000	2000/2001
Number of person hours	1260	2340
Hours of operation*	1388	2428
Minimum water temperature	8°C	10.5°C
Maximum water temperature	12°C	14°C
Fishwheel revolutions per minute	3.4	2.5
Total adult salmon catch	327	755
Total sockeye catch	301	130
Days of full operation	63	117

*Hours of operation exceed person hours because the fishwheel operated without staff at night.

Monitoring the decline—and revival—of Rivers Inlet sockeye

The precipitous decline of the Rivers Inlet sockeye runs has become the alarm signal for all other British Columbia fish stocks. The Oweekeno First Nation who live on the north shore of the Wannock River call it "living waters" because there should always be fish of one kind or another migrating up and down between Rivers Inlet and Owikeno Lake. But, in recent years, the salmon runs have become so small that residents have witnessed starving grizzly bears.

Fisheries Renewal BC started funding the operation of a fishwheel in the Wannock River in 1999/2000. LGL Ltd. managed the fishwheel in partnership with Oweekeno Fisheries and Rivers Inlet Restoration Society using it as a tool for calculating the size of salmon runs; eventually, it should also be a means for the Owekeeno to once again harvest salmon for themselves.

"We're seeing it first as a stewardship tool," says Richard Bussanich, Fisheries Biologist with LGL Ltd. Environmental Research Associates. "Over the long term, the fishwheel can give us valuable information about the timing of salmon runs and their distribution in addition to relative abundance."

"On the Nass and Fraser Rivers, fishwheels have successfully captured salmon for tagging and recovery programs. But the Owikeno sockeye are a weak stock. In 1999 and 2000 we captured too few salmon to make estimates of returning sockeye. The problem we faced in 2000 was not capturing sufficient numbers because the stock is so weak. Fisheries and Oceans Canada estimated that only 21,100 sockeye returned in 2000, of which we caught 130 and tagged just 124."

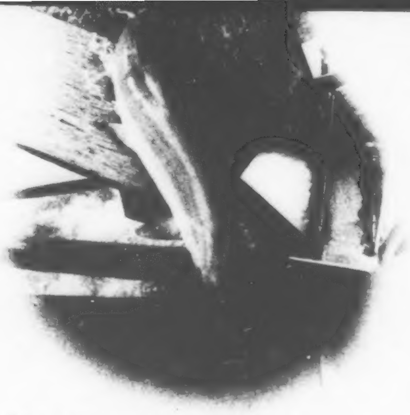
Fish caught by the fishwheel are measured for length, tagged and have a few sample scales removed in a matter of 20 seconds or less. Combined with other work such as salmon habitat rehabilitation and construction of spawning channels along the rivers that feed into Owikeno Lake as well as more environmentally friendly logging operations, there is hope that the stocks will gradually recover. Another program that appears to be working well is the planting of 50,000 salmon eggs in protective floating cassettes; 93 per cent survived the transition from egg to fry release.

One reason for optimism is that, thanks to a hatchery program sponsored by the Rivers Inlet fishing lodges, chinook salmon stocks—the staple catch for recreational fishers—have returned to respectable levels. Nobody will be more pleased when the sockeye return in harvestable numbers than members of the Owekeeno First Nation who have forsaken their food fishery to help the struggling stocks recover.

PARTNER:

Fisheries Renewal BC Investment: $1[illegible]

Fishwheel in operation along Wannock River.



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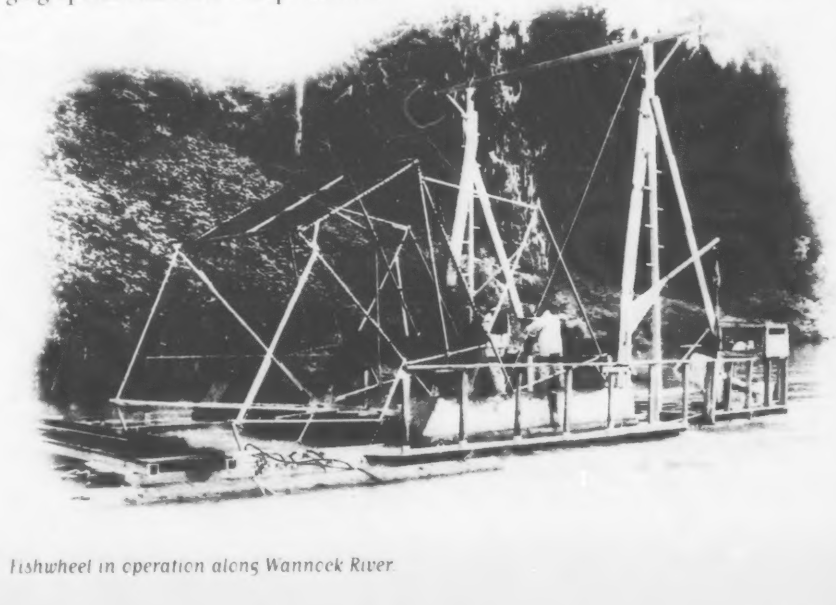
PARTNER

Fisheries Renewal BC Investment: $156,969



Fishwheel in operation along Wannock River

South Islands Aquatic Stewardship Society

Sooke

T'Sou-ke First Nation ADMINISTRATIVE PARTNER

New Gulf Islands signs asking people to respect sensitive inter-tidal area.

Partners

Friends of Mt. Douglas Park Society
Coastal Enterprise & Resource Centre
Tugwell Creek Homeowners
Ecosophy Consulting
South Island Streams
Tsawout First Nations
Amalgamated Conservation Society
Watership Foundation
Area G Trollers
Camosun College
Community Fisheries Development Centre
Coastal Environmental Restoration Cooperative Association
Goldstream Volunteer Salmonid Enhancement Association
Island Streams and Salmon Enhancement Association
Friends of Bowker Creek
Hamly Environmental Technology
Native Brotherhood of British Columbia
United Fishermen & Allied Workers Union Society
Vancouver Island Agriculture
Colquitz Watershed Stewardship/Greater Victoria Schools
Society for the Protection of Ayum Creek
Sooke Renfrew Forest Society
Sooke Salmon Enhancement Society
Sidney Anglers
University of Victoria
Sea Change Marine Conservation Society
AMW Consulting
Veins of Life Watershed Society
Habitat Acquisition Trust
Nanaimo & Area Land Trust
T'Sou-ke Nation
Sooke Watershed Inventory and Mapping Project
Esquimalt Lagoon Enhancement Association
Watershed Environmental Services
Stream Team
Portage Inlet Sanctuary and Colquitz Estuary Society
Wsikem-Tenten Stewardship Project
Opening Minds with Water Project
Econews
Aqua-Tex Scientific Consulting Ltd.
Galiano Conservancy Association

Projects

ENVIRONMENTAL ACCOUNT .... TOTAL 16

INVENTORY & MAPPING 3
Sooke Digital Habitat Atlas*
Sooke Basin SHIM Mapping
Capital Region Natural Areas Atlas Initiative

STOCK/HABITAT ASSESSMENT 1
Sooke Watershed Habitat Survey Completion

STOCK ENHANCEMENT 1
Demamiel Creek Water Storage Project Amendment

HABITAT RESTORATION 9
Lens Creek Side Channel
Fulford Creek Watershed Restoration
Demamiel Creek Habitat Restoration Project
Demamiel Creek Water Storage Project
Relocation & Restoration of Blenkinsop Creek
Noble Creek Salmon Habitat Improvement
Restoration of Douglas Creek
Community Eelgrass Restoration Program
Durrell Creek Restoration 2000

EDUCATION & PUBLIC AWARENESS 1
Education for Protection of Sensitive Low Tide Areas*

STEWARDSHIP & COMMUNITY PLANNING .. 1
Quick's Bottom Restoration-Phase 2

*indicates projects profiled on opposite page

FINANCIAL ACCOUNT	
Fisheries Renewal BC Approved Investments ($)	349,255
Other Investments ($)	471,527
Total Investments ($)	820,782
In-Kind Contributions (estimated $)	205,975
ECONOMIC DEVELOPMENT ACCOUNT	
Jobs Created – #/person-days	105/2,204
Volunteer Contribution – days	479
EMPLOYMENT EQUITY ACCOUNT	
Fisheries Workers	31
Youth	27
Women	25
Aboriginal Persons	17

Surveying in Sooke River watershed.

Fish habitat information available to all

Until now, there has been a dearth of information about the Sooke River and its tributaries even though it is one of the most well-used of watersheds. It is the source for Greater Victoria's drinking water and provides valuable salmonid habitat as well as nutrients for shellfish and other aquatic lifeforms in Sooke Bay and Sooke Inlet. This absence of data has meant that land use planning and permitting has proceeded without accurate knowledge of the needs of fish populations.

That will all change with the release in 2001 of a CD-ROM containing exhaustive information about this entire watershed, including a two-hour-long aerial video and hundreds of photographs taken on the ground as well as an atlas of the Sooke River watershed. "Anyone using this digital atlas will be able to click on a section of a stream to get detailed information about its properties at that location," says Jason Byrne, the project's designer and coordinator. "They will see a photograph of that part of the stream and can view the video for a look from overhead."

Mr Byrne, with a crew of T'sou-ke First Nation members, has mapped and described more than 100 kilometres of 31 streams. With this information, local planners and decision-makers will be better able to implement the new Streamside Directives under the B.C. Fish Protection Act. In addition, Mr Byrne is anticipating that all the information will be available on Fisheries and Oceans Canada's Web site in 2001.

PARTNER: T'Sou-ke First Nation, Jason Byrne

Fisheries Renewal BC Investment: $22,050

> *...few of us understand the fragile ecology and complexity of life in the intertidal zone.*

Don't take, just look

Everyone enjoys beaches whether to sunbathe, beachcomb, stroll or frolic in the water. But few of us understand the fragile ecology and complexity of life in the intertidal zone. If we did, we might not take interesting shells or gnarly pieces of driftwood home—because these are, as some recently posted signs on select Gulf Islands' waterfronts state, "essential materials in building a healthy intertidal zone."

A pilot project, these signs, erected in fall 2000, are at 27 separate locations on the southern Gulf Islands, including Salt Spring, North and South Pender, Galiano and Saturna. Working closely with government agencies and environmental organizations, the Pender Island-based Education for Protection of Sensitive Low Tide Areas Committee has put up signs with different messages depending on the locale and its sensitive habitat.

At Salt Spring Island's five locations, signs advise visitors that it is "a fish nursery and waterbird feeding and breeding area." Signs at seven BC Parks locations, as well as at three marinas on the Penders, ask people not to "collect marine life but observe it in its natural habitat " and to "take only pictures home."

PARTNER: Education for Sensitive Low Tide Areas Committee

Fisheries Renewal BC Investment: $5159

Surveying in Sooke River watershed

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PARTNER: Education for Sensitive Low Tide Areas Committee

Fisheries Renewal BC Investment: $5159

Squamish/Lillooet Rivers Watershed Partnership Group

Squamish

Squamish River Watershed Society ADMINISTRATIVE PARTNER

Partners

- Pemberton Sportsmen's Wildlife Association
- Resort Municipality of Whistler
- Pacific Initiatives
- Fisheries and Oceans Canada
- Ministry of Environment, Lands and Parks
- Squamish Nation
- District of Squamish
- Pacific Streamkeepers Federation
- BC Hydro
- Squamish Estuary Conservation Society
- N'Quatqua First Nation
- Xa'xtsa First Nation
- Skatin First Nation
- North Vancouver Outdoor School
- Wilson Environmental Consulting Ltd.
- Whistler Fisheries Stewardship Group
- Bowen Island Forest and Water Management Society
- Creekside Resources Inc.

Projects

ENVIRONMENTAL ACCOUNT .... TOTAL 25

INVENTORY & MAPPING 9

- Stream Classification of Pemberton-Mount Currie Corridor
- Bowen Island Shim 2000*
- Stream Classification Map for Urban Squamish
- Fish Utilization of Lower Lillooet Tributaries
- Upper Birkenhead Bull Trout Conservation-Spawner Survey
- Biophysical Fish Habitat Inventory & Assessment of Lower Pool Creek
- River of Golden Dreams Watershed Management Plan-Mapping Component
- Stream Mapping of Little Stawamus River
- Stream Classification Post Audit Work: Volunteer Monitoring Program

STOCK/HABITAT ASSESSMENT 5

- Gowan Creek Off Channel Habitat Prescription
- T'sik Creek Off Channel Habitat Prescription
- Peq Creek Coho Spawner Survey
- Gates Creek Habitat Assessment
- Sloquet Creek Off Channel Assessment

HABITAT RESTORATION 7

- Mount Currie Slough Restoration
- Cottonwood Creek Beaver Fencing
- Whistler Fisheries Stream Rehab./Community Awareness
- 27Km Fish Habitat Enhancement
- Moodys Channel Side Pond Complexes*
- Mamquam Ponds
- Fee Creek Upgrade 2000

EDUCATION & PUBLIC AWARENESS 3

- Little Stawamus Foot Bridge
- Return of the Salmon Festival
- Mamquam Channels Salmon Signage Project

STEWARDSHIP & COMMUNITY PLANNING .. 1

- Squamish Adopt-A-Stream*

*indicates projects profiled on opposite page

Noting fish habitat characteristics on Bowen Island stream.

FINANCIAL ACCOUNT	
Fisheries Renewal BC Approved Investments ($)	294,253
Other Investments ($)	172,944
Total Investments ($)	467,197
In-Kind Contributions (estimated $)	130,230
ECONOMIC DEVELOPMENT ACCOUNT	
Jobs Created – #/person-days	113/1098
Volunteer Contribution – days	92
EMPLOYMENT EQUITY ACCOUNT	
Fisheries Workers	7
Youth	16
Women	44
Aboriginal Persons	35

F7

Streamkeepers organize and act immediately

In just 8 months, the Squamish Streamkeepers Group grew from 6 to 44 volunteer members. In that time they worked on 13 projects, which included cleaning up 4 local watercourses, assisting with coho and chum egg takes at the Tenderfoot Hatchery, spawner surveys, a field trip for elementary students, a riparian planting and various public educational activities. It's an impressive start that shows there's keen community interest in restoring and protecting local fish-bearing streams, which are often beside industrial and residential developments.

Squamish streams have endured illegal dumping in recent years and the Streamkeepers have made cleaning them up a top priority. In just one 500-metre stretch of Wilson Slough, 12 volunteers pulled out 15 shopping carts, 8 tires and a full pick-up load of other garbage.

When a stream is once again fit for fish, it's important to keep it clean. Streamkeepers do this partly through public education—for example, they have worked with the District of Squamish to put up signs with stream name and fish habitat information along most local streams.

Other ongoing activities are restoration and prevention as well as undertaking surveys to see that all this effort is helping more fish survive and return to spawn. In less than a year, the Squamish Streamkeeper Group has achieved a tremendous amount which bodes well for the area's streams in the future.

PARTNER: Squamish River Watershed Society

Fisheries Renewal BC Investment: $7817

Cultural immersion in a new aquatic habitat

Each year more than 5000 elementary school students participate in the natural history and First Nations cultural immersion programs at the North Vancouver Outdoor School in Brackendale, north of Squamish. Now the school has built an aquatic habitat area with trails so these children can study salmonid-rearing habitats in a safe environment. The school constructed a channel along part of a BC Hydro right-of-way which posed some unique problems—and provided unique solutions.

"We wanted to have a full aquatic spectrum but we could not grow trees under Hydro wires," says Carl Halvorson, Property Manager at the school. "So we're putting in those native food plants that grow in wetland and stream edge habitats and were used by the Squamish First Nation people."

Depending on the season, the complex will flood and dry up with changes in the groundwater level which can vary by as much as one metre. To compensate for these fluctuations and to ensure fish fry survive, the school dug out several cool, deep-water refuge areas.

Fish, primarily coho and chum salmon fry, are already thriving in this new habitat which will enable generations of children to develop a respect for aquatic ecology and a knowledge of how to protect the environment.

PARTNER: North Vancouver Outdoor School (School District #44)

Fisheries Renewal BC Investment: $17,268

Identifying and describing streams in a developing island

Part of the Greater Vancouver Regional District, Bowen Island has many streams that provide habitat for coho and chum salmon as well as cutthroat trout. To ensure these watercourses stay viable as the island's population and residential areas grow, the Bowen Island Forest & Water Management Society has undertaken Sensitive Habitat Information and Mapping (SHIM) surveys of all major creeks. Up-to-date Bowen Island maps now incorporate this information which has also become part of the Islands Trust data system.

In fall 2000, the society mapped 3 creeks over a total length of 8.5 kilometres. Features accurately located and described include tributary entries, wetlands, culverts, bridges, wells, dams and pools. The surveying team also assessed the state of trees and shrubbery along the streams as well as possible obstructions to the passage of fish.

PARTNER: Bowen Island Forest & Water Management Society

Fisheries Renewal BC Investment: $10,104

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PARTNER: Bowen Island Forest & Water Management Society

Fisheries Renewal BC Investment: $10,104

Sunshine Coast Salmonid Renewal Partnership

Gibsons

Community Fisheries Development Centre ADMINISTRATIVE PARTNER

Powell River elementary school students 'making rain' in their watershed models.

Partners

- Sunshine Coast and Powell River Community Futures Development Corporation
- Sliammon First Nation
- Sechelt Indian Band
- Powell River Model Community
- CUPE Local 798
- Ministry of Environment, Lands and Parks
- Sunshine Coast Salmon Enhancement Society
- Sports Fishery Advisory Board
- Community Fisheries Development Centre
- Capilano College – Sunshine Coast Campus
- Pender Harbour and District Wildlife Society
- Gambier Island Conservancy
- Fisheries and Oceans Canada
- Texada Salmon Society
- Powell River Salmon Society
- Sunshine Coast Watershed Stewardship Society
- United Fisherman and Allied Workers' Union

Projects

ENVIRONMENTAL ACCOUNT .... TOTAL 31

INVENTORY & MAPPING 3

- Watershed Mapping of Salmonid Bearing Streams on Gambier Island*
- Trimble GPS Data Collection
- Theodosia River Juvenile Salmonid Population Estimate

STOCK/HABITAT ASSESSMENT 2

- Theodosia & Okeover River
- Salmonid Habitat and Population Assessment

STOCK ENHANCEMENT 6

- HSPP Incubation and Rearing
- Chapman Creek Hatchery Salmon Rearing Tank Restoration
- Sechelt Inlet/Halfmoon Bay Terminal Fisheries
- Lang Creek Chinook
- Sliammon Chum Enhancement 2000
- Chapman Creek Fish Tank Installation

HABITAT RESTORATION 12

- Stream Rehab. and Fish Habitat Enhancement on Gambier Island
- Coho Spawning Habitat Improvement
- Gosden Creek
- Sakinaw Coho Enhancement Program
- Mixal Creek Rehabilitation
- Sakinaw Lake: Sockeye Spawning Beach Restoration
- Lang Creek Site 00/01
- Lang Creek Site 00/02
- 2000 Jervis Inlet Side Channel
- Off Channel Habitat-Ouilet Creek
- Sliammon River Off/Channel
- Anderson Creek Off/Channel Habitat

EDUCATION & PUBLIC AWARENESS 6

- Streams, Science, and Stewardship
- Chapman Creek's Rivers Day Celebration
- Stream Enhancement Training
- Watershed Education*
- Madeira Park Wetlands Educational Display
- Langdale Creek Healthy Streams Interpretation Sign

OTHER 2

- FsRBC-Kelly Creek Waterflow-Quality
- Willingdon Creek Water Flowing Monitoring

*indicates projects profiled on opposite page

FINANCIAL ACCOUNT	
Fisheries Renewal BC Approved Investments ($)	**370,458**
Other Investments ($)	**149,199**
Total Investments ($)	**519,657**
In-Kind Contributions (estimated $)	**137,744**

ECONOMIC DEVELOPMENT ACCOUNT	
Jobs Created – #/person-days	**101/1207**
Volunteer Contribution – days	**357**

EMPLOYMENT EQUITY ACCOUNT	
Fisheries Workers	**42**
Youth	**14**
Women	**32**
Aboriginal Persons	**19**

Map your streams, then treat them wisely

While most of Gambier Island, the largest in Howe Sound, is still undeveloped, future industrial and residential developments have the potential to severely disrupt its natural environment. To ensure future growth respects Gambier's ecosystems and wildlife habitats, islanders initiated the Gambier Island Conservancy which, in turn, sponsored the Gambier Island Streamkeepers and watercourse mapping projects.

The streamkeepers have concentrated their efforts on making inventories of the natural and physical aspects of Gambier's major salmonid-bearing streams. In addition, they have made accurate maps of all of the island's streamcourses, lakes and wetlands. These maps show precisely the boundaries of Gambier's 252 watersheds and sub-watersheds as well as many roads and trails. The Gambier Island Conservancy has become a model of local environmental stewardship and community-based involvement in land use planning.

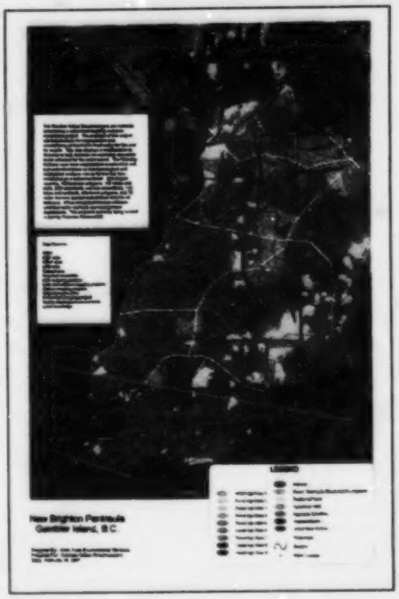
"What we now have," says Lois Kennedy, the Streamkeepers' and Watershed Mapping Project's Coordinator, "is a sophisticated and comprehensive computerized mapping system. This information is organized on a watershed basis for the whole island. We have detailed reports and analyses for 14 major watersheds."

"We intend to manage our watersheds and water resources on a 'water first' principle for the benefit of all plants and animals living on the island. We now have a powerful analytical tool to help us achieve this goal. It has made it possible to develop a new official community plan with strong land use policies and bylaws that protect our watersheds, streams and fisheries resources from unplanned and uncontrolled development. "

PARTNER: Gambier Island Conservancy

Fisheries Renewal BC Investment: $34,744

Grief Point Elementary School students participating in a water education class, Powell River.



Map of Gambier Island watersheds and streams.

Watershed stewardship for 10-year-olds

Take 30 Grade 5 students, 15 turkey roasting pans, a good supply of boulders and gravel, some clear plastic wrap and they became?—15 little watersheds. Add some rain from squirt bottles and there were streams. Add some sponges for vegetation and chocolate syrup for pollution and there were watersheds in action with drainage, headwaters, confluences and all major features. It was fun and it was educational, as 275 Powell River elementary school students found out for themselves in the first three months of 2001.

There was a serious aspect to the program, created by Dianne Sanford who lives in Roberts Creek. It meshed well with curriculum requirements and helped to foster a sense of stewardship in the students; they learned about water cycles, how essential water is for all life forms, how to conserve water and what makes good fish habitat.

PARTNER: Moonstone Enterprises

Fisheries Renewal BC Investment: $8832

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PARTNER: Gambier Island Conservancy

Fisheries Renewal BC Investment: $34,744

LEGEND
New Brighton Peninsula
Gambier Island B.C.

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Fisheries Renewal BC Investment: $8832

Grief Point Elementary School students participating in a water education class, Powell River.

Taku & Atlin Area Community Fisheries Working Group

Atlin

Taku River Tlingit First Nation ADMINISTRATIVE PARTNER

Projects

ENVIRONMENTAL ACCOUNT .... TOTAL 6

STOCK/HABITAT ASSESSMENT 5

Altin Lake Small Mesh Gillnet Assessment*
Atlin Lake Angler Harvest Survey
Sport Fishing Creel Survey on the Nakina River
Taku River Drainage Fish Habitat Assessments*
Assessment of Critical Fish Habitat in the Atlin Area

EDUCATION & PUBLIC AWARENESS 1

Atlin School Fisheries Education Initiative

***Indicates projects profiled on opposite page**

Aerial photograph of Taku River in north-west British Columbia showing the ever-changing channels where fish spawn.

Partners

Atlin District Board of Trade
Fisheries and Oceans Canada
Northern BC Sport Fishing
Atlin Wilderness Adventures

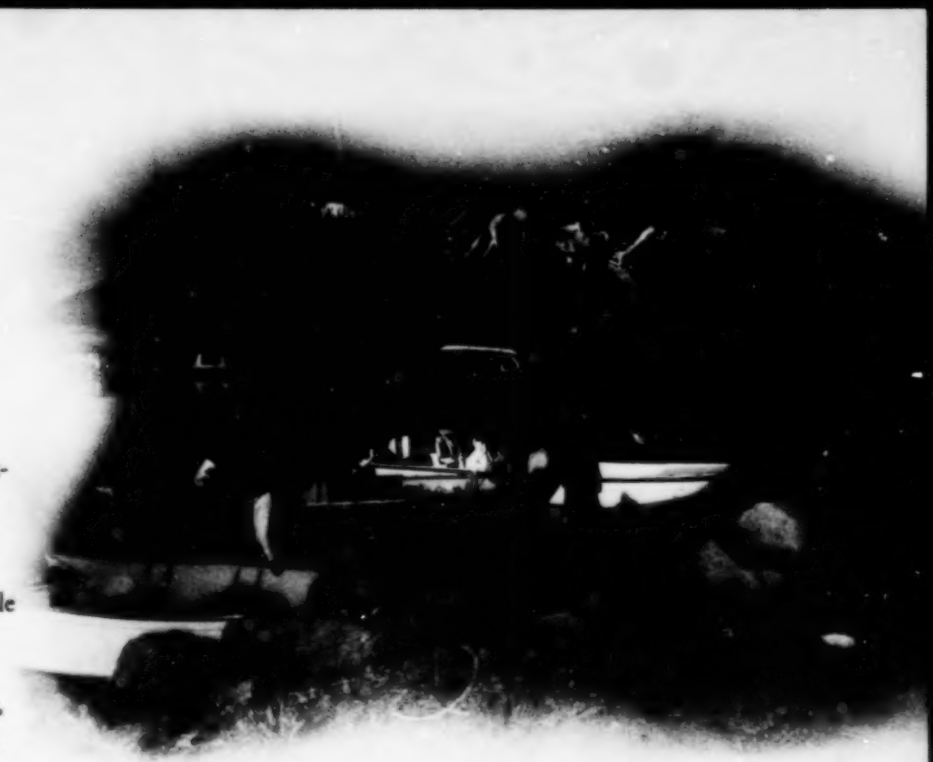
> *"All this work helps us get ahead of the curve in protecting fish habitat"*

> *The status of 43 per cent of the salmon stocks in British Columbia is unknown. Of the 5476 stocks which could be classified, 3 per cent or 142 stocks are extinct, 13 per cent are at moderate-to-high risk of extinction and 4 per cent are of special concern.*
>
> ENVIRONMENTAL TRENDS IN BRITISH COLUMBIA 2000, P.44

FINANCIAL ACCOUNT	
Fisheries Renewal BC Approved Investments ($)	145,646
Other Investments ($)	3946
Total Investments ($)	149,592
In-Kind Contributions (estimated $)	20,000
ECONOMIC DEVELOPMENT ACCOUNT	
Jobs Created – #/person-days	19/586
Volunteer Contribution – days	100
EMPLOYMENT EQUITY ACCOUNT	
Fisheries Workers	4
Youth	1
Women	5
Aboriginal Persons	9

Getting ahead in the sustainability curve

Atlin Lake in the far reaches of northwest British Columbia is virtually unspoiled because a comparatively small population lives on its shores and there is little economic activity to affect it, except small-scale gold placer mining and tourism. One of the province's largest freshwater lakes, it is home to lake trout, lake whitefish and round whitefish. But, until this year, nobody had studied the status of these stocks and gathered the data necessary for making informed fisheries management decisions.



Atlin Lake Biological Monitoring Program staff preparing boats for survey using small-mesh gillnets.

Over a two-week period in June and July 2000, the sponsoring partners conducted a survey using small-meshed gillnets. Part of the Atlin Lake Community Based Biological Monitoring Program, the project's staff made 434 gillnet sets around all of the shoreline. Round whitefish represented almost two-thirds of the catch by number but, in terms of weight, lake trout comprised nearly 60 per cent of the total. The lake also contains significant numbers of Arctic grayling, longnose suckers, pike, lake whitefish, burbot and least cisco.

Other study results showed that, of all the large lakes in the region, Atlin has the highest Catch per Unit of Effort (CPUE) for lake trout but the lowest for lake whitefish. Several years ago, there were concerns raised about pollution affecting fish health but analysis of lake trout muscle tissue showed no elevated levels of the insecticide toxaphene or of mercury.

Other Monitoring Program components included an angler survey, mapping lake trout spawning sites, genetic analysis of lake trout tissue and distributing public information. "All this work helps us get ahead of the curve in protecting fish habitat," says Mark Connor, Habitat Steward, Taku River Tlingit First Nation Fisheries Department. "People here are self-reliant and that makes us well suited to developing community-based stewardship."

PARTNER: Taku River Tlingit Fisheries Department, Taku and Atlin Area Community Fisheries Working Group, Yukon Territorial Government

Fisheries Renewal BC Investment: $48,559

Finding the secrets of a changing river

Dynamic rivers like the salmon-bearing Taku, which is south of Atlin, have complex and everchanging fish habitats. This fast-moving river changes course so much that spawning sites move over time. To understand the hows and wheres of Taku salmon habitat, the Taku River Tlingit First Nation Fisheries Department initiated a program to assess long-term trends in habitat distribution.

The project hired a contractor to take aerial photos which will become part of a geographic information database. By mapping salmon habitat patterns as they change, the project's partners hope they will be able to monitor habitat changes over time; understanding these shifts is needed for long-term land use planning. The database will also incorporate the results from field investigations like the one conducted in fall 2000 along the lower Taku.

PARTNER: Taku River Tlingit First Nation

Fisheries Renewal BC Investment: $43,000

Getting ahead in the sustainability curve

Atlin Lake in the far reaches of northwest British Columbia is virtually unspoiled because a comparatively small population lives on its shores and there is little economic activity to affect it, except small-scale gold placer mining and tourism. One of the province's largest freshwater lakes, it is home to lake trout, lake whitefish and round whitefish. But, until this year, nobody had studied the status of these stocks and gathered the data necessary for making informed fisheries management decisions.

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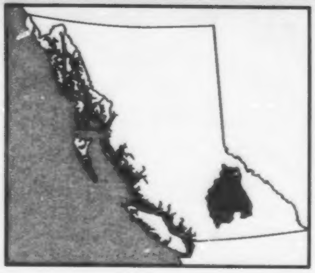
PARTNER: Taku River Tlingit First Nation

Fisheries Renewal BC Investment: $43,690



Thompson Basin Fisheries Council

Kamloops

Shuswap Nation Fisheries Commission ADMINISTRATIVE PARTNER

Finished side channel on Huwer property. Middle Shuswap River.

Partners

- Nicola Watershed Stewardship and Fisheries Authority
- Okanagan Nation Fisheries Commission
- Skeetchestn Band
- Kingfisher Environmental Interpretative Centre
- BC Federation of Drift Fishers
- Thompson River Flyfishers Association
- BC Wildlife Federation
- BC Federation of Fly Fishers
- Adams Lake Band
- Fisheries and Oceans Canada
- Ministry of Environment, Lands, and Parks - Fisheries Branch
- Spallumcheen Band
- Eagle River Watershed Roundtable
- Bonaparte Band
- Upper Nicola Band
- Nooaitch Band
- Nicola Tribal Association
- Whitevalley Community Resource Centre
- North Thompson Band
- Little Shuswap Band

Projects

ENVIRONMENTAL ACCOUNT .... TOTAL 21

STOCK/HABITAT ASSESSMENT 4

- Coho Salmon Enumeration 2000
- Lower Shuswap River Tributary Coho Spawner Survey
- Shuswap Lake Tributary Coho Spawner Survey
- Chinook and Coho Spawner Aerial Enumeration Program

HABITAT RESTORATION 13

- Bessette Creek Restoration Project
- Eagle River Fish Habitat Improvement*
- Lower Shuswap River Fish Habitat Restoration and Stewardship Program
- Coldwater Smolt Pond Outflow Complexing
- Bonaparte River Habitat Enhancement
- Louis Creek Habitat Restoration
- McArthur Slough Fish Habitat Restoration & Enhancement Project*
- North/South Thompson Rivers Habitat Restoration
- Upper Sinmax Streambank Stabilization
- Mann Creek Stream Restoration
- Sinmax Creek Fish Habitat, Stream Channel and Riparian Restoration Works
- Middle Shuswap Side Channel Development*
- Thompson Basin Riparian Plant Purchase

EDUCATION & PUBLIC AWARENESS 3

- Thompson Basin Streamkeepers Program-Expansion Phase
- Phase 3 Shuswap Lake Foreshore Protection & Stewardship Project
- TBFC Promotional Capacity Project

OTHER 1

- TBFC Monitoring and Evaluation

*indicates projects profiled on opposite page

FINANCIAL ACCOUNT	
Fisheries Renewal BC Approved Investments ($)	683,256
Other Investments ($)	185,510
Total Investments ($)	868,766
In-Kind Contributions (estimated $)	295,071
ECONOMIC DEVELOPMENT ACCOUNT	
Jobs Created – #/person-days	197/1996
Volunteer Contribution – days	330
EMPLOYMENT EQUITY ACCOUNT	
Fisheries Workers	4
Youth	16
Women	18
Aboriginal Persons	44

Adult coho in spawning channel, Senn Creek, near Sicamous.

Secondary students build a rest stop for salmon

McArthur Island Slough on the Thompson River in Kamloops is a refuge area for juvenile coho salmon in addition to several resident species. Working with Thompson Basin Streamkeepers, Ducks Unlimited and the City of Kamloops, students from North Kamloops Secondary School built 10 1.8-metre square floating platforms for the slough. Covered in grass and plants, these will provide shade and refuge for juvenile salmon.

Says Dave Eburne, in charge of the school district's natural resources program, "As the fish come down the river, they'll float in there and rest up. The big benefit is that the kids are doing something in their own neighbourhood and they will be able to come back and see the results of their work."

PARTNER: Thompson Basin Streamkeepers

Fisheries Renewal BC Investment: $16,630

Middle Shuswap side channel developments

A community-minded spirit of cooperation and dollar-stretching combined with government expertise led to the construction of over 2 kilometres of rearing and spawning habitat along the Middle Shuswap River. A particularly complex part of this large project was the construction of habitat along a 1.5 kilometre stretch of old creekbed.

The property owners, Tom and Joe Huwer, eagerly participated in the planning, even though fisheries management regulations curtail what they may now do with six hectares of their property. Other landowners in this area also helped with the work by donating rocks, logs and tree stumps for the restoration area. The cost savings meant that the project was able to build more habitat for each dollar invested.

PARTNER: Whitevalley Community Resource Centre Society

Fisheries Renewal BC Investment: $150,000

> *"... to be a catalyst to achieve and maintain a healthy Eagle River watershed through coordinated management of all resources, respect for all concerns and cooperative, positive action."*
>
> —EAGLE RIVER WATERSHED ROUNDTABLE SOCIETY'S STATED OBJECTIVE

More coho for the Eagle

Running into Shuswap Lake near Sicamous, the Eagle River shares its valley with the Trans-Canada Highway, a major railway line, timber operations and many farms. These neighbours have affected the fish habitat in the river and contributed to the decline in salmon numbers.

Recognizing that productive coho spawning and rearing habitat was at risk, local residents formed the Eagle River Watershed Roundtable Society (ERWRS) in 2000. And they have been busy, planting riparian zones, monitoring water quality and water temperature and trapping fish fry. In addition they have produced and distributed salmonid habitat education materials to raise awareness about the state of the river.

The Roundtable's most ambitious project in 2000/2001 was the construction of a 125-metre long spawning riffle near Malakwa with increased water flow and levels through an off-channel rearing pond. It's always been a favoured rearing site for coho and, with these rearing and spawning enhancements, ERWRS thinks these stocks will have a better chance of recovering.

In November the Society's efforts were rewarded with the sighting of more than 50 adult coho salmon spawning as well as sockeye adults and Rocky Mountain whitefish. In the early spring, Society members happily spotted coho fry in the spawning riffle.

The project shows that there is hope for restoring population levels of the threatened Thompson Basin coho.

PARTNER: Eagle River Watershed Roundtable

Fisheries Renewal BC Investment: $48,410

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PARTNER: Thompson Basin Streamkeepers
Fisheries Renewal BC Investment: $16,630

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Upper Fraser and Nechako Fisheries Council

Prince George

Prince George Nechako Aboriginal Employment and Training Association ADMINISTRATIVE PARTNER

Partners

Lheidli T'enneh Band
Carrier Sekani Tribal Council
McBride Municipal Representative (individual)
Prince George Municipal Representative (individual)
Saik'uz First Nation, Stoney Creek
District of Fort St. James
Ministry of Environment, Lands and Parks
Fisheries and Oceans Canada
BC Conservation Foundation
Environmental Dynamics Inc.
Polar Coachmen Flyfishers

Projects

ENVIRONMENTAL ACCOUNT .... TOTAL 24

INVENTORY & MAPPING 2

Freshwater Fisheries Inventory and Stocking Assessment
Lake Inventory of Tezzeron Lake

STOCK/HABITAT ASSESSMENT 10

Early Stuart Adult Enumeration Program
Assessment of Upper Fraser River White Sturgeon*
Level II Fish Habitat Assessment in Nahounli Creek Watershed
Evaluation of The Effects of Alterations of Stream Crossings
Comparative Kokanee Study
Endako River Outlet Flow Control
Chilako River Watershed Fluvial Geomorphology
Fine Sediment Structure and Storage in Sockeye Salmon Streams
Purchase Telemetry Equipment for Fish Tracking Projects in Upper Fraser Watersheds
Nechako River Bull Trout Telemetry Study

HABITAT RESTORATION 5

Isle Pierre Ferry Site Rehabilitation
Littoral Oxygen Depletion Study
Cottonwood Island Side Channel Rehabilitation Project
Sauls Creek and Loch Lomond Habitat Restoration
Stewardship Capacity Building within the Nahounli Creek Watershed

EDUCATION & PUBLIC AWARENESS 2

FREE Fest (Fraser River Education Entertainment Festival)
Illustrating the Erosion of BC's Fisheries

STEWARDSHIP & COMMUNITY PLANNING .. 3

Community Based Watershed Management
Fraser Lake Stewardship Development
A Stewardship Approach to Watershed Management*

OTHER 2

Water Quality Study of the Upper Goat River Watershed*
Stuart Watershed Genetic Preservation Study

*indicates projects profiled on opposite page

Volunteer biologist from Environmental Dynamics Inc. showing McMillan Creek Stewardship Group members how to plant willow whips to help restore riparian zone.

FINANCIAL ACCOUNT	
Fisheries Renewal BC Approved Investments ($)	524,128
Other Investments ($)	331,246
Total Investments ($)	855,374
In-Kind Contributions (estimated $)	371,944
ECONOMIC DEVELOPMENT ACCOUNT	
Jobs Created – #/person-days	168/2405
Volunteer Contribution – days	436
EMPLOYMENT EQUITY ACCOUNT	
Fisheries Workers	14
Youth	10
Women	31
Aboriginal Persons	29

Giving an urban stream back to the fish

Watercourses in urban areas can suffer degradation from many sources. Among them are:

- construction debris that often clog streams
- storm run-off from streets containing vehicle exhaust particles that pollute water
- illegally dumped garbage
- loss of vegetation along stream banks.

As in the case of McMillan Creek in Prince George, local residents often take on the task of restoring these streams and put endless hours into what is a true labour of love.

McMillan Creek's entire 15-kilometre length is within Prince George's boundaries. It has a significant rainbow trout population and is a juvenile rearing stream for chinook salmon. The problem for both these populations is that the loss of trees and shrubs along the creek's banks are creating erosion which in turn causes silt build-up on the streambed; this can affect fish gills and suffocate fish eggs in gravel. In addition, the loss of tree shade raises water temperature which harms trout if it's above 16° C.

Founded in 1998, the McMillan Creek Stewardship Group is replanting suitable vegetation, restoring fish habitat, identifying pollution sources and educating the public about the creek. In October 2000, 30 volunteers restored 120 metres of the creek which is used by rainbow trout. They installed large woody debris and rootwads in the water and planted trees on the banks. These will cool the water temperature and create pools over clean gravel bottoms.

PARTNER: McMillan Creek Stewardship Group

Fisheries Renewal BC Investment: $ 16,[illegible]

Keeping Upper Fraser sturgeon and their environment healthy

While sturgeon populations in areas like the lower Fraser River and the Nechako River appear to be declining in number, a 2000/2001 study shows the Upper Fraser white sturgeon stocks to be "present in significant numbers." Using a set line, fisheries biologists caught 74 sturgeon in a 400-kilometre length of the river downstream from McBride as well as some of its tributaries.

The researchers found that this population represents a range of ages—sturgeon can live for more than 60 years. This contrasts with the Nechako stocks which mostly contain fish over 30 years old. To maintain these stocks, the Lheidli T'enneh Band plans to undertake more studies using radio telemetry tags.

"In the long term," says Bryan Toth, Project Manager, "we want to gather information on how the fish are doing. We want to identify critical areas for spawning and juvenile fish rearing so we can ensure those habitats are preserved and not impacted by human activities."

PARTNER: Lheidli T'enneh Band

Fisheries Renewal BC Investment: $50,000

Measuring water quality in a watershed before forestry work starts

The Upper Goat River watershed is one of the last unlogged areas in the Upper Fraser River Basin. It contains spawning habitat for 50-100 chinook salmon annually and has a resident population of bull trout and, possibly, mountain whitefish. To survive these fish need water that is clean, cool and clear. But maintaining this condition may be difficult given that logging will be happening in cutblocks on steep slopes from which sediment can enter the river system and affect fish habitat.

In 2000/2001 the Lheidli T'enneh Band set up 5 monitoring stations on the Upper Goat to measure turbidity (cloudiness in water) and suspended solids in the water before forestry work starts and 11 others to keep track of water temperature. A local forestry company loaned monitoring equipment needed for the project. The first year's data show that the water is generally clear. The work will continue so government staff in the area can make better informed land use decisions for the Upper Goat and other nearby watersheds.

PARTNER: Lheidli T'enneh Band

Fisheries Renewal BC Investment: $42,[illegible]

Sturgeon caught in Grand Canyon, Upper Fraser River.

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PARTNER: McMillan Creek Stewardship Group

Fisheries Renewal BC Investment: $ 16,862

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PARTNER: Lheidli T'enneh Band

Fisheries Renewal BC Investment: $42,885

Sturgeon caught in Grand Canyon, Upper Fraser River

Development and Diversification Program

ECONOMIC DEVELOPMENT PROGRAMS

One of the key goals of FsRBC is to develop fishery resources that contribute to the provincial economy. To ensure that fish and fisheries are an important element in B.C.'s economy, it is vital to encourage and facilitate industry-wide marketing, research, and operational practices. Each year, we continue to strengthen the emphasis on economic development. The programs are evolving so that the industry will be better situated to take advantage of new opportunities.

The intent behind Fisheries Renewal BC's Development and Diversification Program (DDP) is to encourage fresh ideas that can create growth in fishing and aquaculture businesses and employment as well as sustain fishing communities.

DDP invests in projects that can lead to new fisheries, increase the value of existing fisheries and produce year-round jobs. DDP contribution recipients must share any knowledge they produce with other potential participants in the fishery or processing industry.

Who applies for Development and Diversification Program funding?

The applicants for investment grants under this program come from various sectors, including:

- seafood industry
- recreational fishing industry
- First Nations
- tourism and marketing organizations
- local governments
- scientific and research institutions.

What types of projects meet DDP criteria?

The following are typical DDP projects:

- developing and diversifying value-added products and services
- developing new and under-utilized fisheries
- improving selective harvesting technologies or techniques
- improving seafood waste reduction and by-product utilization
- expanding shellfish aquaculture
- improving seafood quality and food safety initiatives
- developing better, environmentally friendly, food manufacturing processes
- encouraging the development of closed-containment fish farming systems
- conducting applied research and development
- expanding fisheries-related tourism opportunities
- developing and transferring new technologies
- conducting market research and analysis
- developing and coordinating sectoral marketing strategies
- investigating regional and community fisheries opportunities.

DDP Investments

FsRBC requires that organizations and businesses applying for DDP funds contribute at least 25 per cent of project costs. FsRBC will invest no more than 40 per cent of a project's total costs. For individual initiatives, Fisheries Renewal BC encourages applicants to enter into partnerships with others in the sector to ensure that the benefits are widely distributed.

DEVELOPMENT AND DIVERSIFICATION PROGRAM PERFORMANCE MEASUREMENTS, 2000/2001

[redacted]	
Shellfish Aquaculture	$449,180
Marketing	$395,000
New Fisheries	$195,345
Selective Fishing	$274,400
New Products	$48,000
Other	$330,600
[redacted]	
Shellfish Aquaculture	9
Marketing	3
New Fisheries	4
Selective Fishing	6
New Products	2
Recreational Fishing	4
Other	3
[redacted]	
[redacted]	
[redacted]	

Fisheries Renewal's partnership & planning and economic programs are helping diverse groups to come together and decide on the best ways to move forward.

Fishing groups, processors, government agencies and coastal communities have been working together to develop new fisheries, adopt sustainable fishing techniques and add value to seafood products in order to revitalize the fishing industry.

Now there's a lot more local involvement in fisheries development.

Cathy Burkosky
DIRECTOR,
FISHERIES RENEWAL BC
FORMER FISHER AND
TROLL FLEET MANAGER

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DEVELOPMENT AND DIVERSIFICATION PROGRAM PERFORMANCE MEASUREMENTS, 2000/2001

TOTAL FISHERIES RENEWAL BC INVESTMENT	**$1.7 MILLION**
Shellfish Aquaculture	$449,180
Marketing	$395,000
New Fisheries	$195,345
Selective Fishing	$274,400
New Products	$48,000
Other	$330,600
TOTAL NUMBER OF PROJECTS	**31**
Shellfish Aquaculture	9
Marketing	3
New Fisheries	4
Selective Fishing	6
New Products	2
Recreational Fishing	4
Other	3
TOTAL JOBS CREATED	**243**
TOTAL INVESTMENT	**$7.6 MILLION**
TOTAL INVESTMENT BY OTHERS	**$5.9 MILLION**

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A new fishermen's market in Nanaimo

Fresh fish straight off the boat will soon be available in Nanaimo where construction of Vancouver Island's first floating seafood market started in January, 2001. Opening in June, 2001, the floating market wharf can accommodate up to eight boats at a time in the inner harbour.

"Giving the public the opportunity to buy fresh seafood right at the dock will help create an appreciation—and demand—for a wide variety of B.C. seafood," says Bob Grant, Project Coordinator for Nanaimo Fishermen's Market Society (NFMS). "We've modelled it on the very successful market in Steveston but ours will be quite a bit smaller."

The market will put more money into the pockets of hard-pressed fishers who will have a perfect opportunity to meet the public's demand for good quality, fresh fish. At first, the market will be limited to fish boat owners selling their own product off their boats but, says Mr. Grant, "we hope in the future to make it possible for oyster farmers and other similar seafood harvesters to sell at the market."

To build the 75 x 4-metre (250 x 14 feet) wharf, NFMS hired 14 out-of-work fishers who received construction and carpentry training.

A retired fishing vessel, housing an interpretative centre on the history of B.C.'s fishing and seafood industry, will be moored to the wharf.

Working on the new Nanaimo Fishermen's Market. The project hired and trained 14 out-of-work fishers to do construction and carpentry work.

Only one boat, *Iron Maiden*, will be a permanent tenant. "*Iron Maiden* has been selling fish to Nanaimo residents for 20 years,"says Mr Grant, "so we've grandfathered its operation because of its history." For all others, it will be first come, first berthed. Each will pay $10 per day and can stay up to five days at a time. A portion of the revenues will pay for the ongoing operations and promotion of the market.

PROJECT: Fishermen's Market

Fisheries Renewal BC Investment: $50,000

Telling the world about fishing opportunities in British Columbia

In the mid-1990s, the media was full of stories about British Columbia's vanishing salmon and there was an inevitable consequence. Fewer recreational fishers were coming to coastal resorts because they assumed that either there were no salmon or they would not be allowed to go fishing.

In response, the Sports Fishing Institute of British Columbia (SFIBC), with funding from federal and provincial government agencies, launched a marketing campaign to overcome these negative perceptions. Five years into the ongoing campaign, the message is no longer one of crisis management but where to go for good fishing opportunities.

"We have been able to establish an excellent working partnership with

Tourism British Columbia, Fisheries Renewal BC and Fisheries and Oceans Canada," says Tom Bird, SFIBC's Executive Director. "We're promoting this sport in a spirit of cooperation and the need for conservation."

In 2000/2001 Fisheries Renewal BC contributed funding to the following initiatives to attract more anglers to British Columbia's coastal communities:

- *2001 Salt Water Fishing Planning Guide* Tourism British Columbia distributes this information-packed publication all over North America. In addition, it is given out by industry operators and retailers as well as at trade shows.
- *www.sportfishing.bc.ca* This web site has all the information an interested angler needs—and more—including virtual games, recipes, fishing regulations, tips and techniques, up-to-date fishing reports and a directory of sport fishing businesses and services.
- *Trade shows* SFIBC coordinated the participation of tourism associations in the B.C. sports fishing booth at 7 North American fishing and outdoor adventure trade shows which attracted more than 100,000 visitors.

PROJECT: Marketing

Fisheries Renewal BC Investment: $95,000

Increasing shrimp catch, reducing unneeded catch

In the past shrimp trawling has been a profitable fishery but, since 1997, concerns with overfishing and bycatch—the netting of untargetted fish—have meant that there are fewer boats fishing for shorter periods. Recognizing the importance of this industry, Fisheries Renewal BC provided funding in 2000/2001 to help the Pacific Coast Shrimpers Cooperative Association (PCSCA) find ways to reduce the bycatch of other species, particularly eulachon.

Eulachon are members of the smelt family that First Nations render into "grease" for cooking and preserving food. Like salmon some return to rivers to spawn but others stay in the sea and estuaries. Their numbers have been declining for over 20 years and nobody knows why. But there is one certainty—they can be an unwanted bycatch in shrimpers' trawl nets.

For over five years , the shrimp-by-trawl industry has been trying out various techniques and equipment to make sure there is as little eulachon bycatch as possible. "We've succeeded in making ourselves one of the cleanest shrimp fisheries anywhere in the world," says Lorne Clayton, Facilitator, PCSCA. "Fishermen in other countries may bring up as much as 40 times more bycatch than shrimp but we've developed methods that reduce ours to less than 5 per cent of the overall catch."

"From 1997 to 1999 we reduced our eulachon bycatch by 70 per cent and we're continuing to find ways to reduce it further. That's a tremendous achievement."

There are two good reasons for lowering the eulachon bycatch––the shrimping industry will have longer periods for fishing and First Nations will see the numbers of a favoured food fish increase. In 2000/2001, Fisheries Renewal BC funded further bycatch reduction studies that tested different configurations of the two main trawling technologies—beam and otter trawls.

The results of testing various net mesh sizes and configurations to let in shrimp but allow eulachon, pollock and other fish species to escape resulted in a further significant reduction in bycatch. The industry and Fisheries and Oceans Canada have agreed that insertion of a rigid two-inch square mesh be mandatory for all otter trawl gear in 2001.

Further testing will continue in 2001/2002 to find other ways and equipment to continue reducing bycatch.

PROJECT: Bycatch Reduction

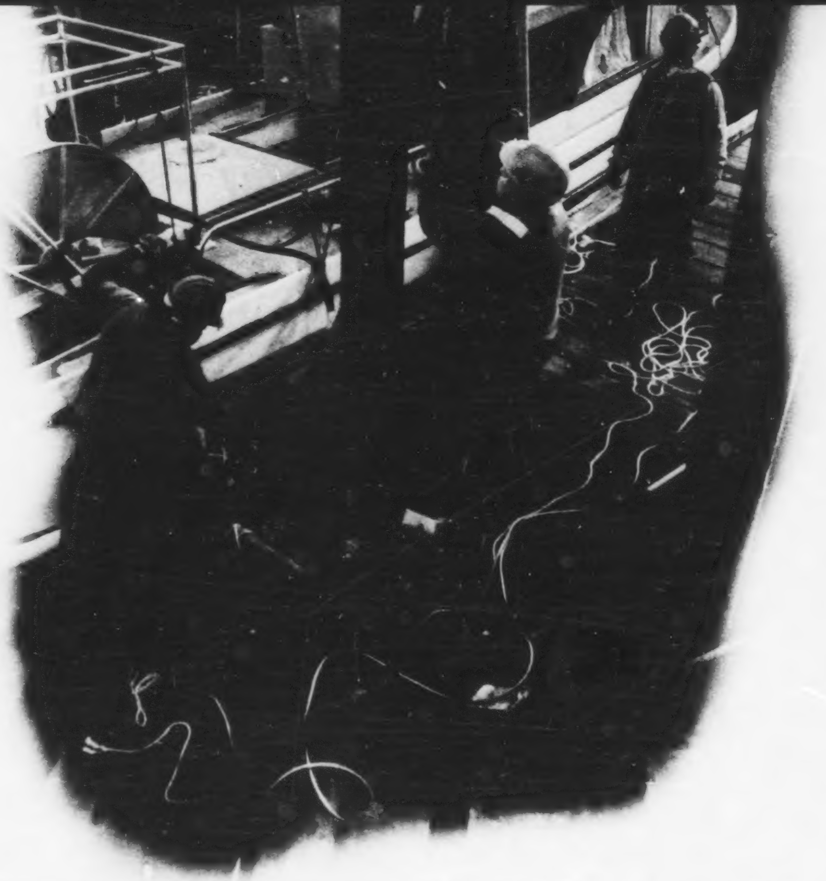
Fisheries Renewal BC Investment: $64,400

Value-added outreach project

In 2000/2001, the BC Seafood Sector Council continued to support and advise seafood processing plants in their efforts to diversify and move away from relying solely on the processing work that salmon and herring provide. The Council worked directly with the industry, providing training and consulting on a plant-by-plant basis. This support allowed and encouraged some smaller processing companies to participate actively in value-added development activities.

PROJECT: Value Added Outreach Project

Fisheries Renewal BC Investment: $150,000



Working on the new Nanaimo Fishermen's Market. The project hired and trained 14 out-of-work fishers to do construction and carpentry work.

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PROJECT: Fishermen's Market
Fisheries Renewal BC Investment: $50,000

Telling the world about fishing opportunities in British Columbia

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- *2001 Salt Water Fishing Planning Guide* Tourism British Columbia distributes this information-packed publication all over North America. In addition, it is given out by industry operators and retailers as well as at trade shows.
- *www.sportfishing.bc.ca* This web site has all the information an interested angler needs—and more—including virtual games, recipes, fishing regulations, tips and techniques, up-to-date fishing reports and a directory of sport fishing businesses and services.
- *Trade shows* SFIBC coordinated the participation of tourism associations in the B.C. sports fishing booth at 7 North American fishing and outdoor adventure trade shows which attracted more than 100,000 visitors.

PROJECT: Marketing

Fisheries Renewal BC Investment: $95,000

Increasing shrimp catch, reducing unneeded catch

In the past shrimp trawling has been a profitable fishery but, since 1997, concerns with overfishing and bycatch—the netting of untargetted fish—have meant that there are fewer boats fishing for shorter periods. Recognizing the importance of this industry, Fisheries Renewal BC provided funding in 2000/2001 to help the Pacific Coast Shrimpers Cooperative Association (PCSCA) find ways to reduce the bycatch of other species, particularly eulachon.

Eulachon are members of the smelt family that First Nations render into "grease" for cooking and preserving food. Like salmon some return to rivers to spawn but others stay in the sea and estuaries. Their numbers have been declining for over 20 years and nobody knows why. But there is one certainty—they can be an unwanted bycatch in shrimpers' trawl nets.

For over five years , the shrimp-by-trawl industry has been trying out various techniques and equipment to make sure there is as little eulachon bycatch as possible. "We've succeeded in making ourselves one of the cleanest shrimp fisheries anywhere in the world," says Lorne Clayton, Facilitator, PCSCA. "Fishermen in other countries may bring up as much as 40 times more bycatch than shrimp but we've developed methods that reduce ours to less than 5 per cent of the overall catch."

"From 1997 to 1999 we reduced our eulachon bycatch by 70 per cent and we're continuing to find ways to reduce it further. That's a tremendous achievement."

There are two good reasons for lowering the eulachon bycatch—the shrimping industry will have longer periods for fishing and First Nations will see the numbers of a favoured food fish increase. In 2000/2001, Fisheries Renewal BC funded further bycatch reduction studies that tested different configurations of the two main trawling technologies—beam and otter trawls.

The results of testing various net mesh sizes and configurations to let in shrimp but allow eulachon, pollock and other fish species to escape resulted in a further significant reduction in bycatch. The industry and Fisheries and Oceans Canada have agreed that insertion of a rigid two-inch square mesh be mandatory for all otter trawl gear in 2001.

Further testing will continue in 2001/2002 to find other ways and equipment to continue reducing bycatch.

PROJECT: Bycatch Reduction

Fisheries Renewal BC Investment: $64,400

Value-added outreach project

In 2000/2001, the BC Seafood Sector Council continued to support and advise seafood processing plants in their efforts to diversify and move away from relying solely on the processing work that salmon and herring provide. The Council worked directly with the industry, providing training and consulting on a plant-by-plant basis. This support allowed and encouraged some smaller processing companies to participate actively in value-added development activities.

PROJECT: Value Added Outreach Project

Fisheries Renewal BC Investment: $150,000

SUMMARY OF INVESTMENTS BY FISHERIES RENEWAL BC'S DEVELOPMENT AND DIVERSIFICATION PROGRAM

Project	Lead Proponent	Project Location	Fisheries Renewal BC Investment ($)	Investment by Others ($)	Total Project Investment ($)	Total Jobs Created
MARKETING						
Salmon Marketing	BC Salmon Marketing Council	Provincial	150,000	61,750	211,750	3
Domestic marketing	BC Salmon Marketing Council	Provincial	150,000	–	150,000	3
Marketing	Sport Fishing Institute of BC	Provincial	95,000	182,500	277,500	3
			395,000			
NEW FISHERIES						
Tuna Longlining	B&B Fishing Ltd.	Vancouver Island	75,000	27,720	102,720	12
Tilapia	Redfish Ranch Ltd.	Vancouver Island	50,000	155,000	205,000	3
Box Crab Feasibility	Sointula Box Crab & Whelk Assoc.	South Coast	20,345	40,140	60,485	5
Sturgeon Aquaculture	Target Marine Products	South Coast	50,000	1,075,624	1,125,624	3
			195,345			
NEW PRODUCTS						
Value Added Co-ordination	BC Seafood Sector Council	Provincial	33,000	–	33,000	2
Flavoured Roes	Hi-To Fisheries Ltd.	South Coast	15,000	56,885	71,885	4
			48,000			
OTHER						
Sector Training	BC Institute of Technology	Provincial	75,000	25,000	100,000	1
Value-Added Outreach	BC Seafood Sector Council	North Island	150,000	275,700	425,700	2
Fishermen's Market	Community Fisheries Development Centre-Nanaimo	Vancouver Island	50,000	427,648	477,648	24
			275,000			
RECREATIONAL FISHING						
Selective Fish Brochure	Alberni Valley Sport Fishing Assoc.	Vancouver Island	9,300	9,700	19,000	1
Family Fishing Weekend	BC Habitat Conservation Trust Fund	Provincial	20,000	250,000	270,000	3
Rec Fish Boat Launch	Sidney Anglers' Association	Vancouver Island	20,000	50,000	70,000	6
Recreation Code of Practice	Sport Fishing Institute of BC	Provincial	6,300	–	6,300	1
			55,600			

SUMMARY OF INVESTMENTS BY FISHERIES RENEWAL BC'S DEVELOPMENT AND DIVERSIFICATION PROGRAM

Project	Lead Proponent	Project Location	Fisheries Renewal BC Investment ($)	Investment by Others ($)	Total Project Investment ($)	Total Jobs Created
SELECTIVE FISHING						
Selective Fishing Tests	Fraser Valley Salmon Society	South Coast	25,000	26,917	51,917	18
Dogfish Trawl	Morreau Fishing Ltd.	North Coast	65,000	179,100	244,100	12
Selective Pink Harvesting	Northern Trollers Association	North Coast	50,000	336,150	386,150	12
Bycatch Reduction	Pacific Coast Shrimpers Co-op Assoc.	Provincial	64,400	39,120	103,520	15
Recreation Education for Selective Fishing	Sport Fishing Institute of BC	Provincial	20,000	14,025	34,025	2
Skeena Fish Trap	Tsimshian Tribal Council	North Coast	50,000	215,150	265,150	45
			274,400			
SHELLFISH AQUACULTURE						
Oyster Grader	Aquatec Seafoods Ltd.	Vancouver Island	20,000	67,200	87,200	5
Bio-toxin Monitoring	BC Shellfish Growers Association	South Coast	50,000	40,500	90,500	4
Sector Development	BC Shellfish Growers Association	Provincial	125,000	60,000	185,000	3
Geoduck Growout	Innovative Aquaculture	Vancouver Island	30,000	56,500	86,500	3
Abalone Research	Island Scallops Ltd.	Vancouver Island	75,000	38,107	113,107	7
Mussel Growout Trials	Island Seafarms	Provincial	56,100	77,650	133,750	3
Biotoxin Monitoring	Ocean Ecology	North Coast	8,080	29,040	37,120	1
Abalone research	Malcolm Island Shellfish Co-operative	Vancouver Island	35,000	2,095,919	2,130,919	34
Abalone Research	Regional Aquatic Management Society	Vancouver Island	50,000	52,150	102,150	3
			449,180			
TOTAL	31 Projects		1,692,525	5,965,195	7,657,720	243
	*Not Proceeded - 1 project		8,000			
TOTAL			1,700,525			
PROGRAM BUDGET			1,700,000			

Planning and Partnership Program

At a local level, fisheries development depends on effective partnerships that cross all sectors. Fisheries Renewal BC, through its Planning and Partnership Program (PPP), contributes funding to feasibility studies and industry workshops, among other activities that benefit broad sectors and local economies.

In the Cariboo and Chilcotin, ranchers are becoming interested and proactive in streamkeeping. They want to know how to improve their practices so that they're not damaging fish habitat. In the end, everybody feels good—ranchers, streamkeepers, government staff. And all this work helps both the recreational and the commercial fishery.

Paul Loeppky,
100 MILE HOUSE RESIDENT
DIRECTOR, FISHERIES RENEWAL BC
FOUNDING MEMBER,
LOWER BRIDGE CREEK WATERSHED
STEWARDSHIP SOCIETY
ANGLER

PPP activities

PPP investments are in endeavours such as the following:

- feasibility studies and risk assessments that might result in broad-based benefits to the seafood sector
- cooperative efforts in the seafood sector including workshops, regional initiatives and strategic planning initiatives
- community-based partnership development
- research and information gathering.

PLANNING AND PARTNERSHIPS PROGRAM PERFORMANCE MEASUREMENTS, 2000/2001

TOTAL FISHERIES RENEWAL BC INVESTMENT	**$320,521**
Workshops/Conferences	$85,100
Public Awareness/Education & Information Gathering	$16,500
Business Planning	$87,460
Feasibility Study	$79,700
Marketing	$10,000
Other	$41,761
TOTAL NUMBER OF PROJECTS	**37**
Workshops/Conferences	13
Public Awareness/Education	4
Planning	9
Feasibility Study	9
Marketing	1
Other	1
TOTAL INVESTMENT	**$1,770,789**
TOTAL INVESTMENT BY OTHERS	**$1,450,268**

Redefining a market in Japan

Over its 25-year history, British Columbia's spawn-on-kelp (SOK) producers have seen an experimental fishery grow from an annual value of $100,000 to a peak of $22,000,000. Producers found a niche in the Japanese high-end gift market where certain customers were willing to pay considerable sums for top-grade herring spawn laid on succulent kelp fronds.

But a recent downturn in the Japanese economy, coupled with an expansion in SOK production, mean that Japan has become a market that can no longer be taken for granted. While there is still a small demand for high-quality "jumbo", as the best SOK is called, the overall market is changing and demand for a different SOK grade appears to be increasing. Which is not good news because Alaska producers direct their SOK at that market segment.

The Spawn on Kelp Operators Association applied to Fisheries Renewal BC for funding to study recent trends in the market. The resulting report gives some insights into the changes in the Japanese marketplace and puts forward several marketing initiatives. These include:

- closer ties between Japanese importers and B.C. producers
- provision of better information from the harvest grounds
- the need for uniform product grading.

PROJECT: Spawn-on-kelp Marketing Strategy

Fisheries Renewal BC Investment: $10,000

Herring spawn-on-kelp, a delicacy in Japan.

Understanding how to benefit from selective fishing

In 2000/2001, Fisheries Renewal BC contributed $25,000 to help regional partners organize four workshops on Fisheries and Oceans Canada's (FOC) Selective Fishing Program. Attended by about 350 participants, who were able to engage in dialogues with FOC staff, the workshops were the first on this topic outside the Lower Mainland.

Held in Kamloops, Port Hardy, Prince Rupert and Port Alberni, the workshops enabled local First Nations, recreational and commercial fishers to update themselves on this important issue. Participants received briefings on the following selective fishing topics:

- experimental pilot projects
- latest research findings
- technical information for each sector/gear group
- new and modified fishing gear
- present policies and how FOC is implementing them
- fishing plans for 2001.

The workshops showed that the fishing community is eager to become involved in the development of selective fishing gear and methods that will provide them with the means to once again earn satisfactory incomes.

PROJECT: Regional Workshops on Selective Fishing

Fisheries Renewal BC Investment: $25,000

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Public Awareness/Education	4
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Feasibility Study	9
Marketing	1
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TOTAL INVESTMENT	**$1,770,765**
TOTAL INVESTMENT BY OTHERS	**$1,450,244**

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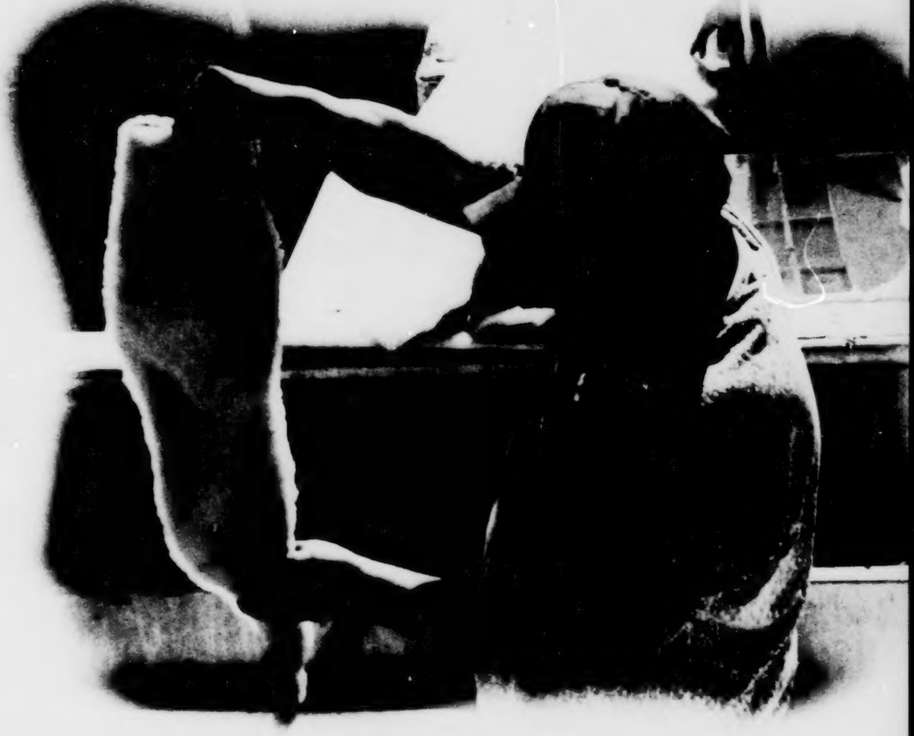

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PROJECT: Regional Workshops on Selective Fishing

Fisheries Renewal BC Investment: $25,000

Family fishing weekend, 2000.

Can cold storage facilities help put more jobs into coastal communities?

Three regional governments on the coast are studying the long-standing issue of cold storage to answer a basic question—would more cold storage capacity increase seafood sector revenues and local employment? For a long time, accepted opinion has answered the question affirmatively but there has never been a study to provide a reliable answer.

The regional districts of Skeena-Queen Charlotte, Alberni-Clayoquot and Mount Waddington are sponsoring the assessment in order to find out whether adequate cold storage capacity will result in the following benefits:

- a longer work season for shoreworkers because raw products could be stored for processing outside the harvesting season
- the encouragement of capital investments by processors in coastal communities to increase the range of locally-produced seafoods
- assistance for businesses such as grocery stores and public facilities such as hospitals which would be able to store large quantities of frozen foods and other products
- more value from each fish for processors.

The BC Seafood Sector Council and B.C.'s Ministry of Fisheries are also contributing their knowledge to the study which will be published in mid-2001.

PROJECT: An Assessment of Cold Storage Requirements on the North Coast, North Island and West Coast of Vancouver Island
Fisheries Renewal BC Investment: $10,000

British Columbians go angling for pleasure

Over the B.C. Day holiday weekend, thousands of families went to a lake to enjoy the simplest of pleasures—fishing. With a simple rod and reel, a bobber and some bait, parents and children could fish without a licence for three days on thousands of lakes and streams throughout the province.

A Web site, *www.familyfishingbc.com*, suggested about 70 fishing spots where both novices and experienced anglers might meet with the best luck. Many of these lakes and streams had stocks of rainbow trout but most beginners were likely to end up with multi-coloured sunfish on the end of their lines.

This was the first of what is expected to be an annual event. One aim is to teach a new generation of recreational fishers the basics of the sport and how to respect the environment and aquatic ecology.

Two well-attended events were held at Victoria's Elk Lake and Coquitlam's Lafarge Lake. At the former, children were able to name and release a trout fry or borrow a rod and line. There were fly fishing clinics and prize draws for trips to B.C. fishing lodges. At Lafarge Lake the BC Federation of Drift Fishers organized events for both adults and children.

PROJECT : Family Fishing Weekend 2000
Fisheries Renewal BC Investment: $20,000
Note: Funded out of DDP.

Saving an industry by profiting from waste

Two fish processing plants in Masset on the Queen Charlotte Islands have adapted to the downturn in the salmon fishery by changing their product lines; one has converted to dogfish and the other has returned to making crab products. But they now face another problem—how to dispose of the one-to-two million pounds of waste they create. Previously, the two plants deposited this organic residue in Masset Sound but, in the future, environmental agencies are likely to ban this practice.

In the absence of a rendering plant on the islands, the Masset Economic Development Commission (MEDC) has taken a proactive attitude and is examining a potentially profitable solution—selling useful by-products like dogfish cartilage and putting waste on the ground in the form of organic fertilizer. Markets for these products are growing: dogfish cartilage is used in Asian medicine and organic fertilizers are increasingly preferred by farmers and gardeners over chemical varieties.

MEDC received a Planning and Partnership Program grant to assess the feasibility of such an enterprise. The two plants are essential to the viability of the overall fishery on Queen Charlotte Islands, employing local residents and buying from local fishers. If they are compelled to go out of business because of a lack of environmentally acceptable waste-disposal facilities, their loss would be devastating for the local economy.

Preliminary findings indicate that the capital cost of a fish by-products facility would be about $550,000 and it would employ five or six local residents. In addition, it would have spin-off benefits for the local community such as purchasing transportation services and supplies. It would also provide other income for the two fish processors. MEDC is now determining whether such a facility should be a separate operation or attached to one of the processing plants.

PROJECT: Masset Fish Waste Planng Project

Fisheries Renewal BC Investment $10,000

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Family fishing weekend, 2000

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Family fishing weekend, 2000.

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Project	Lead Proponent	Project Location	Fisheries Renewal BC Investment ($)	Investment by Others ($)	Total Project Investment ($)
CAMP – TOTAL 1					
Envirocamp	Pacific Initiatives	Lower Mainland	7,000	7,121	14,121
			7,000	7,121	14,121
EDUCATION/AWARENESS – TOTAL 4					
Fraser 2000 Spirit of the Salmon Swim	Rivershed Society of BC	Provincial	2,500	654,500	657,000
Mission of Streams Resource Centre: Facility Development & Grand Opening	CFDC of North Fraser	Mission	10,000	55,960	65,960
Salmon Stories Exhibition Launch	Museum at Campbell River	Campbell River	2,000	0	2,000
Science Council Awards Sponsorship	Science Council of BC	Vancouver	2,000	0	2,000
			16,500	855,460	881,960
FEASIBILITY STUDY – TOTAL 9					
Fisheries Sustainability Report	BC Seafood Alliance	Provincial	10,000	5,210	15,210
Jammin for Salmon Watershed Coaliton	Fraser Valley Regional Watersheds Coalition	Lower Mainland	2,500	0	2,500
Reduction Facility Feasibility Study	Keltic Seafoods	Vancouver Island	10,000	0	10,000
North Coast Cold Storage Assessment	Skeena Queen Charlotte Regional District	North Coast	10,000	57,900	67,900
Prawn Fishery Monitoring Association	Pacific Prawn Fishermen's Association	Provincial	10,000	2,855	12,855
Research & Planning for Shellfish Aquaculture	Oweekeno Nation Council	Central Coast	8,200	4,913	13,113
Value-Added Opportunities for Albacore	BC Tuna Fishermen's Association	Provincial	9,000	12,500	21,500
Varnish Clam Feasibility Study	Community Futures – Powell River	South Coast	10,000	1,000	11,000
Waste Handling Facility in the Queen Charlottes	Village of Masset	North Coast	10,000	5,000	15,000
			79,700	89,378	169,078
MARKETING – TOTAL 1					
Marketing Strategy for Spawn on Kelp	SOKOA	Provincial	10,000	20,000	30,000
			10,000	20,000	30,000
PLANNING – TOTAL 9					
An NBBC Facilitated Action Plan for Native Coastal Communities	Native Brotherhood of British Columbia	Provincial	10,000	120,580	130,580
BC "Aquaculture Research and Development Advisory Structure"	Science Council of BC	Provincial	10,000	34,852	44,852
British Columbia Shrimp by Trawl	Shrimp Caucus	Provincial	10,000	30,000	40,000

SUMMARY OF INVESTMENTS BY FISHERIES RENEWAL BC'S PLANNING AND PARTNERSHIP PROGRAM

Project	Lead Proponent	Project Location	[illegible]	[illegible]	[illegible]
First Nations Rec Fish Strategy Participation	BC Aboriginal Fisheries Commission	Provincial	9,460	0	9,460
Kitkatla Nation Abalone	Kitkatla Band Council	North Coast	8,000	21,000	29,000
North Island Seafood Development Strategy Initiative	Coastal Community Network	Vancouver Island	10,000	5,000	15,000
Oolichan Strategy for Fraser River	Musqueam Fisheries	South Coast	10,000	7,500	17,500
Shellfish Resource Stategic Planning	Alliance Tribal Council	South Coast	10,000	5,000	15,000
Strategic Planning Inititiative for the BC Aquaculture Industry	Open Learning Agency	Provincial	10,000	3,000	13,000
			87,460	226,932	314,392

WORKSHOP/CONFERENCE – TOTAL 13

Aquaculture Pacific Exchange Conference & Exposition	Mamalilikulla Nation	Campbell River	2,600	9,400	12,000
Comox Valley Community Development Institute Initiative	Social Planning & Research Council of BC	Comox Valley	4,500	60,350	64,850
Northern Quality Seafood Expo 2000	Skeena Queen Charlotte Regional District	North Coast	3,000	16,000	19,000
Workshop on Geoduck Culture & Enhancement	Malaspina University College	Provincial	9,900	0	9,900
Regional Selective Fishery workshop – WC Island	RAMS	Vancouver Island	5,000	10,000	15,000
Oolichan Workshop	Native Brotherhood of British Columbia	Provincial	10,000		
'Putting Fishers' Knowledge to Work', Aboriginal Fisheries Forum	BCAFC/UBC Fisheries	Provincial	10,000	120,000	130,000
Nutrient Conference	BC Conservation Foundation	Vancouver	3,100	3,200	6,300
Regional Selective Fishing Workshop – North Island	Inner Coast Natural Resource Centre	Vancouver Island	5,000	10,000	15,000
Regional Selective Fishing Workshop – Interior	BC Aboriginal Fisheries Commission	Interior	5,000	15,000	20,000
Regional Selective Fishing Workshop – North Coast	Community Fisheries Development Centre	North Coast	10,000	10,000	20,000
CCN Conference	Coastal Community Network	Provincial	7,500	0	7,500
Workshop On Marine Plant Aquaculture	Cornerstone Planning Group	Provincial	9,500	7,403	16,903
			85,100	251,353	336,453

PROJECTS UNDER DEVELOPMENT	34,761		34,761
TOTAL PROJECTS 37	**320,521**	**1,450,244**	**1,770,765**

Original Renewal Program Ideas

Original Renewal Program Ideas (ORPI) gives Fisheries Renewal BC an opportunity to revitalize fisheries by funding the ingenuity, creativity and knowledge of British Columbians. This program invests in areas that are strategically important to the seafood sector as a whole but fall outside the ambit of other FsRBC programs. It allows individuals involved in the industry to take advantage of new opportunities.

The program depends for its success on the applications submitted which makes it difficult to project ORPI's benefits to the industry. However, previous ORPI investments in such areas as marketing and research have already produced beneficial results.

ORPI activities

The ORPI program supports endeavours that include:

- marketing and market analysis
- research and development
- shellfish development
- recreational fisheries
- use of existing community capacity in the seafood industry
- other original ideas.

ATLANTIC
Salmon Fillets
Compliment
ATLANTIC
Salmon Fillets
Salmon Fillets

British Columbia seafood whets international appetites.

Sustainable fishery equals sustainable markets

The BC Salmon Marketing Council (BCSMC) is taking the first steps towards having the province's salmon fishery certified under the principles and criteria of the Marine Stewardship Council (MSC). An international body based in the United Kingdom, MSC uses the power of the marketplace to improve fisheries management and ensure the viability of fish stocks over the long-term. Consumers who buy fish products with the MSC logo know that they are supporting an environmentally friendly and sustainable fishery.

Successful certification entails compliance with certain key principles, including:

- a fishery must clearly demonstrate that it is harvesting fish within limits that ensure natural replacement;
- fishing methods and gear must be highly selective and avoid non-targetted species;
- a fishery must respect its marine ecosystem's well-being and diversity; and
- a fishery is obliged to follow local, national and international laws, rules and regulations that support responsible and sustainable fishing.

Receiving this certification is important, if not essential, since consumers around the world are becoming more conscious of their role and power in demanding that products come from sustainably managed resources. Already, some international customers for British Columbia salmon are advising producers that the fishery must receive this certification; otherwise, B.C. will lose markets and market share.

B.C.'s salmon fisheries have changed more in the last five years than in the previous fifty; some of these developments that favour MSC certification are:

- B.C.'s salmon fleet and fishing capacity are downsizing.
- Fisheries and Oceans Canada's precautionary and conservation-based management is changing salmon fishing times and locations as well as methods.
- Selective fishing for B.C.'s salmon is setting new standards for ethical fisheries management.

The preliminary moves towards certification are already under way. BCSMC has chosen a certifying company, Scientific Certification Systems, to undertake the preassessment phase of the process. Based on data provided by Fisheries and Oceans Canada, the industry and key stakeholders, this stage determines if the fishery's application is likely to succeed. If the answer is positive, the full certification procedure, carried out by a three-person evaluation team, will begin. It will take considerable time because they will review fish stock assessments, the fishery's environmental impacts and the management of the fishery. Then there is a review of the review by outside experts. Unsurprisingly, Alaska's successful application for MSC certification took four years.

Some issues that the certifier will be considering are:

- interception of US-based salmon
- aboriginal fisheries
- salmon farming
- recreational fisheries
- loss of fish habitat in watercourses
- management data
- management philosophies.

Once BCSMC has received the preassessment report, expected in summer 2001, it will determine how to proceed to the next step in consultation with harvesters and processors.

PROJECT: Stewardship Certification for Salmon Fishery

Fisheries Renewal BC Investment: $25,000

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PROJECT: Stewardship Certification for Salmon Fishery

Fisheries Renewal BC Investment: $25,000

Marketing the range and diversity of B.C.'s seafoods

In 2000/01 Fisheries Renewal BC asked the BC Salmon Marketing Council (BCSMC) to take the lead in promoting the whole range of British Columbia seafood products at home and abroad.

Seafood Trade Shows

One of the most effective vehicles for demonstrating and launching products, trade shows are also costly. Most B.C. seafood harvester and processors can't afford their own booths but can afford to participate collaboratively. BCSMC organized, designed and managed booths and promotional materials for two trade shows—West Coast Seafood Show (WCSS) in Los Angeles (September, 2000) and European Seafood Exposition (ESE) in Brussels (April, 2001).

Seafood products on display at WCSS included sablefish, rockfish, ling cod, tuna loins, canned tuna, halibut, oysters, chum salmon fillets, and spawn-on-kelp. There was also a tank with live geoduck. B.C. chef Kosta Zogaris prepared tasty items from all products.

The ESE is the major international seafood exhibition. B.C. incorporated its booth into a Canadian stand. At this show B.C. producers were able to meet European buyers and understand their requirements.

BC Seafood Sensations

For the second year in a row, BCSMC and Fisheries Renewal BC held a competition for value-added seafood products.

The eventual goal is to make this event self-sustaining; towards that end, the organizers this year successfully solicited more sponsorships as well as other significant contributions. The event now has its own web location on the BCSMC's Internet site.

In 2000/2001, 17 companies submitted 22 products for judging. The winners were:

Lox Royale Processors Inc. - Sockeye Salmon Hot Bits

Wood Bay Seafood Ltd. - Atlantic Salmon Fillets Marinated in Lemon, Pepper and Dill

Assessing dishes in BC Seafood Sensations competition.

Chefs Program

B.C. chefs who enjoy providing their customers with new or unfamiliar local seafoods appreciate having more information about and access to these products. In response BCSMC formed an alliance with "C" Restaurant in Vancouver which has won awards for its creative dishes using both familiar and little-known local seafoods. Local seafood firms and industry associations had their products featured at two seafood producer dinners in October 2000 and January 2001. Local seafoods such as sea urchins, Dungeness crab, sardines, smoked albacore tuna, wild winter spring salmon, ponded halibut, oysters, mussels, sablefish and geoducks were featured. The dinners received extensive media coverage.

PROJECT: Integrated Marketing Program for B.C.'s Seafoods

Fisheries Renewal BC Investment: $300,000

Helping science help fish

Linking the scientific and fishing communities through basic research is a necessary step in revitalizing the resource and all those who depend on it. Fisheries Renewal BC provided $272,607 for 14 research projects aimed at sustaining and renewing fisheries resources. In its second year, the Applied Research and Development Program is administered by the Science Council of British Columbia (Science Council).

A committee of peers selected by the Science Council review applications for the program. Criteria for assessing projects include:

- a demonstrated community need for research
- an element of collaboration or community participation
- a research problem needing investigation

- research that could lead to a new industry
- new knowledge to make an existing industry more effective.

In 2000/2001, the projects included: studying the potential of using traditional First Nations fishing gear in selective fisheries; developing and testing an automated vessel monitoring system for B.C.'s commercial hook and line fisheries; and determining a sustainable level for shellfish aquaculture in Lemmens Inlet in Clayoquot Sound.

PROJECT: Applied Research and Development Program, 2000/2001
Fisheries Renewal BC Investment: $300,00

B.C. seafood processors are creating new and tasty products for domestic and international markets.

SUMMARY OF INVESTMENTS BY FISHERIES RENEWAL BC'S ORIGINAL RENEWAL PROGRAM IDEAS

Project	Lead Proponent	Project Location	Fisheries Renewal BC Investment ($)	Investment by Others ($)	Total Project Investment ($)
RESEARCH					
Applied Research and Development Program 2000-2001	Science Council of British Columbia	Provincial	300,000	0	300,000
WORKSHOP/CONFERENCE					
Professional Fish Harvesters Constituent Assembly	BC Council of Professional Fish Harvesters	Provincial	50,000	92,360	142,360
MARKETING					
Integrated Seafood Marketing Program	BC Salmon Marketing Council	Provincial	300,000	0	300,000
OTHER					
Regional Seafood Economic Development Project	BC Seafood Sector Council	Provincial	100,000	50,000	150,000
Aquaculture/First Nations Training	North Island College	Provincial	67,250	123,300	190,550
Stewardship Certification	BC Salmon Marketing Council	Provincial	25,000	13,000	38,000
Technology Transfer Program	BC Seafood Sector Council	Provincial	145,000	0	145,000
*Shellfish Aquaculture Working Capital Fund	BC Shellfish Growers Association	Provincial	500,000	875,000	1,375,000
TOTAL	8 Projects		**1,487,250**	1,153,660	2,640,910

*Currently continuing negotiations with various parties

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BC SALMON MARKETING COUNCIL
CANADA

B.C. seafood processors are creating new and tasty products for domestic and international markets.

SUMMARY OF INVESTMENTS BY FISHERIES RENEWAL BC'S ORIGINAL RENEWAL PROGRAM IDEAS

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*Currently continuing negotiations with various parties

Urban Salmon Habitat Program

> ***I am enjoying the opportunity to serve on the Fisheries Renewal BC board of directors as the federal representative.***
>
> ***We are striving to bridge the gap between the federal and provincial governments. Fish don't know about boundaries and we need to get past them as well.***
>
> ***Focussing on the renewal of fish and fisheries, not people and policies, has kept the corporation moving forward through the rough times.***
>
> ZoAnn Morten
> DIRECTOR, FISHERIES RENEWAL BC
> DIRECTOR, PACIFIC STREAMKEEPERS FEDERATION
> LONG-TIME SALMONID ENHANCEMENT VOLUNTEER

In summer 2000, Fisheries Renewal BC took over responsibility for administering the Urban Salmon Habitat Program (USHP) grants. FsRBC operates this highly successful program with the Ministry of Environment, Lands and Parks (MELP) and BC Fisheries. USHP concentrates on protecting and restoring salmon and salmonid habitat in urban areas and in the urban-rural interface where local governments have control over planning and development.

FsRBC provides two funding paths for projects—one for local governments, the other for community stewardship groups. MELP staff provide technical advice to the groups who receive USHP grants to protect and restore habitat. USHP only funds projects in Georgia Basin communities (see map on opposite page).

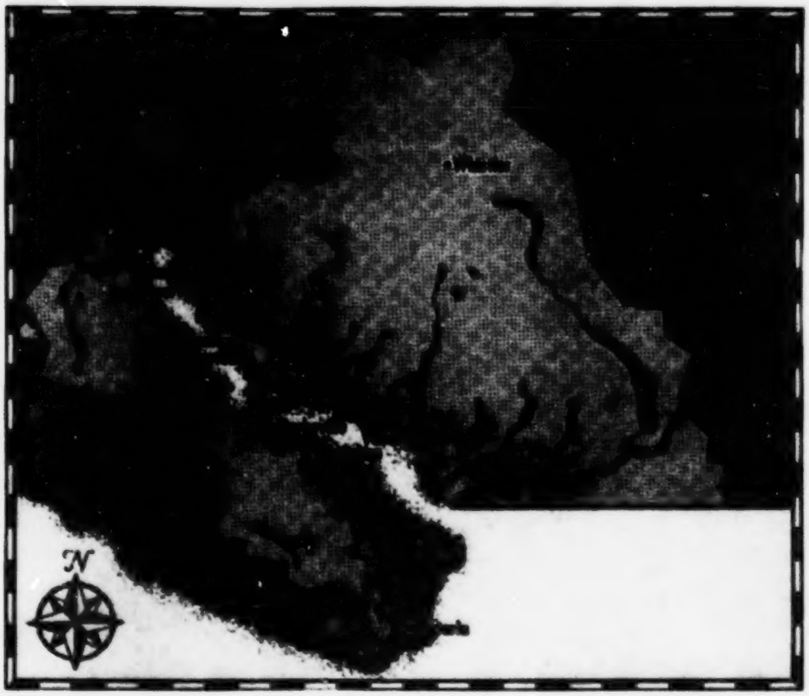
Since 1995, the USHP's goals have been:

1. to ensure sustainable wild salmon and other salmonid stocks and habitats in populated areas of the Georgia Basin
2. to build partnerships with other orders of government, including First Nations, to facilitate effective land-use planning
3. to initiate community involvement, including landowners and developers, in land-use planning
4. to increase public awareness of salmon and salmonid populations and habitats.

FsRBC did not receive any funds in 2000/2001 for distribution under this program. Therefore, there is no financial or other statistical reporting for USHP in this report but there will be in 2001/2002. USHP grant recipients from 2000/2001 are listed below.

LOCAL GOVERNMENTS – LOWER MAINLAND	
Port Moody	$20,000
Langley (Township)	$20,000
Surrey	$20,000
Burnaby	$29,995
Maple Ridge	$15,000
Squamish	$24,000
Coquitlam	$15,000
Mission	$38,250
Chilliwack	$30,000
Abbotsford	$20,000
Langley (City)	$3340
Whistler	$11,000
Gibsons	$4723

LOCAL GOVERNMENTS – VANCOUVER ISLAND	
Comox-Strathcona (Regional District)	$20,000
Saanich	$20,000
Nanaimo (City)	$16,047
Nanaimo (District)	$20,000
Ladysmith	$4500
Campbell River	$20,000
Courtenay	$10,000
Qualicum Beach	$6000
Cowichan Valley (Regional District)	$20,000



Urban Salmon Habitat Program boundaries.

COMMUNITY STEWARDSHIP GROUPS – LOWER MAINLAND	
British Columbia Watershed Stewardship Alliance	$12,000
Stoney Creek Environment Committee	$14,414
Langley Environmental Partners Society	$30,000
Bowen Island Conservancy	$6000
Whistler Fisheries Stewardship Group	$12,345
Pepin Brook Streamkeepers	$17,700
Gambier Island Conservancy	$25,000
Como Watershed Group	$5000
Salmon River Watershed Management Partnership	$11,190
Stave Valley Salmonid Enhancement Society	$10,000
Alouette River Management Society	$9000
Seymour Salmonid Society	$25,000
West Vancouver Streamkeepers	$8000
Kanaka Education and Environmental Partnership Society	$14,270
British Columbia Institute of Technology (Fish, Wildlife, Recreation Prog.)	$10,000
British Columbia Wildlife Federation Wetland Keepers Program	$10,000
Pitt River and Area Watershed Network	$6300
Little Campbell Watershed Society	$15,949
Hyde Creek Streamkeepers	$16,425
Coquitlam River Watershed Society	$10,000
North Fraser Salmon Assistance Project	$15,000
T. Buck Suzuki Environmental Foundation	$14,640
Squamish Nation	$10,000
Hoy-Scott Creek Streamkeepers	$1450
Pinetree Secondary School	$1000

COMMUNITY STEWARDSHIP GROUPS – VANCOUVER ISLAND	
Nanaimo Fish and Game Protective Association	$14,670
Millard/Piercy Watershed Stewards	$24, 938
Nile Creek Enhancement Society	$13,570
Island Stream and Salmon Enhancement Society	$9950
Discovery Coast Greenways Land Trust	$19,750
Qualicum Beach Streamkeepers Society	$18,230
Storie Creek Streamkeepers	$9713
Oyster River Watershed Management Committee	$7900
Galiano Conservancy Association	$10,980
Nanaimo Area Land Trust Project 2000	$2714
Bilston Watershed Habitat Protection Association	$2475
Portuguese Creek Watershed Stewards	$15,925
Oyster River Enhancement Society	$7900
Nanoose Streamkeepers Society	$972
Cowichan Lake Salmonid Enhancement Society	$5000
Fanny Bay Salmonid Enhancement Society	$8874
Society for the Protection of Ayum Creek	$5800
Pender Islands Conservancy Association	$6750

Statement of Management's Responsibility

Management, in accordance with Canadian generally accepted accounting principles, has prepared the financial statements of Fisheries Renewal BC. These statements present fairly the financial position of Fisheries Renewal BC as at March 31, 2001 and results of operations for the year then ended.

Management is responsible for the preparation, integrity and objectivity of the financial statements. Systems of internal control are developed and maintained by management to provide reasonable assurance that transactions are properly authorized, assets are safeguarded, and financial records are properly maintained to provide a reliable basis for preparation of the financial statements.

The Auditor General of British Columbia has performed an independent audit of the financial statements. The Report of the Auditor outlines the scope of his audit and his opinion on the financial statements of Fisheries Renewal BC.

Paul Kariya
CHIEF EXECUTIVE OFFICER
FISHERIES RENEWAL BC

Ron Faust
CHIEF FINANCIAL OFFICER & CORPORATE SECRETARY
FISHERIES RENEWAL BC

New Westminster, British Columbia
May 18, 2001

Report of the Auditor General of British Columbia

To the Board of Directors of Fisheries Renewal BC, and
To the Minister of Agriculture, Food and Fisheries,
Province of British Columbia

I have audited the balance sheet of Fisheries Renewal BC as at March 31, 2001 and the statements of changes in net assets, operations and cash flows for the year then ended. These financial statements are the responsibility of the Corporation's management. My responsibility is to express an opinion on these financial statements based on my audit.

I conducted my audit in accordance with Canadian generally accepted auditing standards. Those standards require that I plan and perform an audit to obtain reasonable assurance whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

In my opinion, these financial statements present fairly, in all material respects, the financial position of Fisheries Renewal BC as at March 31, 2001 and the results of its changes in net assets, operations and cash flows for the year then ended, in accordance with Canadian generally accepted accounting principles.

Wayne Strelioff
Wayne Strelioff, CA
AUDITOR GENERAL

Victoria, British Columbia
May 18, 2001

Balance Sheet

MARCH 31, 2001, WITH COMPARATIVE FIGURES FOR 2000

ASSETS

	2001	2000
	$	$
Current assets		
Cash and short term investments (Note 3)	11,160,564	12,579,200
Accountable advances	419,024	843,643
Funding receivable	90,000	91,097
Prepaid expenses	2,048	2,708
	11,671,636	13,516,648
Current assets (Note 4)	127,850	104,224
	11,799,486	13,620,872

LIABILITIES AND NET ASSETS

	2001	2000
Current liabilities		
Accounts payable and accrued liabilities	658,304	3,087,264
Program accruals	1,187,532	1,164,131
	1,845,836	4,251,395
Net assets	9,953,650	9,369,477
	11,799,486	13,620,872

Approved by the Board

Joy Thorkelson, CHAIR

John Holdstock

The accompanying notes are an integral part of these financial statements

Statement of Changes in Net Assets

YEAR ENDED MARCH 31, 2001, WITH COMPARATIVE FIGURES FOR 2000

	2001					2000
	Reserve for Funded Projects			Unappropriated	Total	Total
	Fisheries Renewal BC (Note 6)	British Columbia Hydro and Power Authority (Note 7)	Forest Renewal BC (Note 7)			
	$	$	$	$	$	$
Balance, beginning of year	4,185,740	–	–	5,183,737	9,369,477	11,926,462
Excess (deficiency) of revenues over expenses	–	–	–	584,173	584,173	(2,556,985)
Internally imposed restrictions, during the year	5,931,747	–	–	(5,931,747)	–	–
Externally imposed restrictions, during the year	–	2,150,000	5,500,000	(7,650,000)	–	–
Reserve no longer required on projects	(1,730,287)	–	–	1,730,287	–	–
Program expenditures, during the year	(6,165,157)	(1,625,471)	(5,500,000)	13,290,628	–	–
Balance, end of year	2,222,043	524,529	–	7,207,078	9,953,650	9,369,477

Statement of Operations

YEAR ENDED MARCH 31, 2001, WITH COMPARATIVE FIGURES FOR 2000

	2001	2000
	$	$
Revenues		
Forest Renewal BC	5,500,000	7,500,000
British Columbia Hydro and Power Authority	2,150,000	2,605,167
Province of British Columbia	7,500,000	–
Investment income	698,741	753,771
	15,848,741	10,858,938
Expenses (Note 5)		
Program	14,240,510	12,593,370
Administration	723,824	573,706
Corporate governance	300,234	248,847
	15,264,568	13,415,923
Excess (deficiency) of revenues over expenses	584,173	(2,556,985)

The accompanying notes are an integral part of these financial statements.

Statement of Cash Flows

YEAR ENDED MARCH 31, 2001, WITH COMPARATIVE FIGURES FOR 2000

	2001	2000
	$	$
Cash Flows used in operating activities		
Cash received from Forest Renewal BC	5,500,000	7,500,000
Cash received from BC Hydro and Power Authority	2,151,097	2,514,070
Cash received from Province of BC	7,500,000	–
Cash received from program repayments	42,137	64,509
Cash paid to suppliers and employees	(17,284,397)	(12,655,036)
Interest received	698,741	753,771
Other cash received (includes pension rebate)	38,403	369
	(1,354,019)	(1,822,317)

Cash flows used in investing activities		
Purchase of capital assets	(64,617)	(35,534)
Net decrease in cash and cash equivalents	(1,418,636)	(1,857,851)
Cash and cash equivalents beginning of year (Note 3)	12,579,200	14,437,051
Cash and cash equivalents at end of year (Note 3)	11,160,564	12,579,200

The accompanying notes are an integral part of these financial statements.

Notes to the Financial Statements

YEAR ENDED MARCH 31, 2001

1. AUTHORITY AND PURPOSE

Fisheries Renewal BC, a Crown corporation, was established by the Fisheries Renewal Act of July 1997. The purpose of Fisheries Renewal BC is to renew the fisheries, promote the protection, conservation and enhancement of fish stocks, restore fish habitat, and strengthen fishing communities for future generations. To achieve this, the corporation has six program areas:

a) **Salmonid Renewal Program**

This program is aimed at producing more fish for British Columbians so as to create sustainable employment in the fisheries. It supports program delivery partners to fund and manage projects that enhance wild fish stocks, restore habitat and promote public awareness of the need to work together to renew the provincial fisheries.

b) **Development and Diversification Program**

The goal of the Development and Diversification Program is to encourage new ideas that lead to sustainable businesses and jobs, more year-round fisheries work, and stronger fishing communities. Projects under this program will contribute to developing new fisheries or increasing the value of existing fisheries in British Columbia.

c) **Planning and Partnership Program**

The Planning and Partnership Program is aimed at building sustainable partnerships with effective planning capacity. Under this program, Fisheries Renewal BC invests in projects that assist communities in developing a collaborative approach to resolving the problems facing our fisheries. This program provides assistance for a range of activities that help groups develop a long-term vision, effective relationships and inclusive planning processes. The program also supports feasibility studies and risk assessments that will have broad-based benefits for the seafood sector of British Columbia.

d) **Original Renewal Program Ideas**

This program is intended to tap the knowledge, experience and abilities of British Columbians in a wide range of fisheries-related activities. These activities would contribute to the corporation's key investment areas and support the objectives of Fisheries Renewal BC. Successful proponents provide innovative, practical, cost-effective ideas that benefit fish, communities, companies and people.

e) **Urban Salmonid Habitat Program (USHP)**

USHP is directed towards the protection of fish habitat where urbanization and development are the greatest threat to that resource. Grant programs within the Georgia Basin operate to (a) support local government positions to integrate fish habitat protection into local planning and decision-making, and (b) assist community stewardship groups interested in undertaking habitat protection and restoration projects in their own communities. This program is coordinated with the Ministry of Environment, Lands & Parks and the Ministry of Agriculture, Food and Fisheries.

f) **Strategic Investment Program**

The Strategic Investment Program invests in areas of importance to the seafood and fisheries sector as a whole so that the industry will be better situated to take advantage of new opportunities. Whether through developing new markets, the sharing of technical information, or investing in areas that link to provincial priorities, this program will lay the groundwork for a revitalized industry in conjunction with current participants. By taking a strategic approach, Fisheries Renewal BC can focus attention on structural issues in the industry.

The corporation is exempt from federal and provincial income taxes.

2. SIGNIFICANT ACCOUNTING POLICIES

a) **General**

These financial statements have been prepared in accordance with Canadian generally accepted accounting principles for not-for-profit organizations.

b) **Investments**

The British Columbia Investments Management Corporation administers investments. Short-term investments are recorded at cost. Gains on sales of investments are recognized in the year of disposal. Losses are recognized in the year of disposal or when there is a significant and permanent impairment in value.

c) **Accountable advances**

Accountable advances represent amounts paid to the project proponent or partner group which have not yet been expended in accordance with the agreement requirements.

d) **Capital assets**

Capital assets are recorded at cost and amortized on a straight-line basis over their estimated useful lives. Estimated useful lives are as follows:

Computer equipment	5 years
Furniture & equipment	10 years

Asset classes costing less than $2,000 are expensed in the year of purchase.

(e) **Use of estimates**

The preparation of financial statements in conformity with Canadian generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts and disclosures of project expenditures and accountable advances at the date of the financial statements. Actual results could differ from these estimates.

(f) **Related parties**

Fisheries Renewal BC is related through common ownership to all Province of British Columbia ministries, agencies and Crown corporations. Transactions with these entities, considered to be in the normal course of operations, are recorded at the exchange amount. The Ministry of Transportation and Highways processes some expenditures for the entity. Fisheries Renewal BC processes all other expenditures in-house.

3. CASH AND SHORT TERM INVESTMENTS

	2001		2000	
	Cost	Market Value	Cost	Market Value
	$	$	$	$
Cash	8,284	8,284	1,187	1,187
Short term investments	11,152,280	11,179,549	12,578,013	12,534,118
	11,160,564	11,187,833	12,579,200	12,535,305

4. CAPITAL ASSETS

	2001		2000	
	Cost	Accumulated Amortization	Net Book Value	Net Book Value
	$	$	$	$
Computer equipment	98,986	46,968	52,018	45,124
Furniture & equipment	102,626	26,794	75,832	59,100
	201,612	73,762	127,850	104,224

5. ALLOCATION OF EXPENSES BY OPERATING AREA

	2001				2000
	Program	Administration	Governance	Corporate Total	Total
	$	$	$	$	$
Program expenses	13,290,628	–	–	13,290,628	11,801,070
Salaries & benefits	488,648	346,024	–	834,672	709,184
Professional services	199,649	110,409	55,869	365,927	318,698
Board fees and expenses	19,523	2,283	213,376	235,182	206,980
Office expenses	171,530	85,495	30,989	288,014	191,718
Building occupancy	–	108,928	–	108,928	71,674
Travel	55,271	29,267	–	84,538	63,445
Information systems	15,261	15,299	–	30,560	26,179
Amortization	–	26,119	–	26,119	26,975
	14,240,510	723,824	300,234	15,264,568	13,415,923

6. RESERVE FOR FISHERIES RENEWAL BC FUNDED PROJECTS

	Salmonid Renewal Program	Development And Diversification	Planning And Partnership	Original Renewal Program Ideas	2001	2000
	$	$	$	$	$	$
Balance, beginning of year	2,550,111	848,581	60,271	726,777	4,185,740	1,369,482
Internally imposed restrictions during the year	2,432,321	1,691,655	320,521	1,487,250	5,931,747	11,280,055
Removed from reserves during the year	(1,313,590)	(223,260)	(36,537)	(156,900)	(1,730,287)	(374,563)
Program expenditures during the year	(3,489,578)	(1,493,136)	(232,641)	(949,802)	(6,165,157)	(8,089,234)
Balance, end of year	179,264	823,840	111,614	1,107,325	2,222,043	4,185,740

7. RESERVE FOR FUNDED PROJECTS

During the year, Fisheries Renewal BC received funds from British Columbia Hydro and Power Authority and Forest Renewal BC to support community-based salmonid renewal projects.

8. EMPLOYEE BENEFIT PLANS

The Corporation and its employees contribute to the Public Service Pension Plan in accordance with the Public Sector Pension Plans Act. The Public Service Pension Plan is a multi-employer, defined benefit plan and is available to substantially all of the Corporation employees. On behalf of employers, the British Columbia Pension Corporation administers the Plan, including payment of pension benefits to employees to whom the act applies. The most recent actuarial valuation (March 31, 1999) has determined the Plan is in a surplus position. The Corporation also annually contributes through the Provincial Government payroll system for specific termination benefits as provided for under collective agreements and conditions of employment.The cost of these employee future benefits are recognized as an expense in the year that contributions are paid. During the year contributions of $38,403 (2000: $0) were refunded to the Corporation.

9. COMMITMENTS

a) Lease obligations

Fisheries Renewal BC has entered into leases for office space and equipment, which expire on various dates to 2006. The future minimum lease payments on these operating leases are:

Minimum Lease Payments	
2002	111,315
2003	110,282
2004	109,248
2005	109,248
2006	109,248
Thereafter	18,208
Total minimum lease payments	567,549

b) Program commitments

At March 31, 2001, Fisheries Renewal BC has contracted program commitments of $2,746,572 (2000: $2,928,096) that carry over to next year.

c) Contract commitments

At March 31, 2001, Fisheries Renewal BC has contract commitments of $21,402 (2000: $54,712) that carry over to next year.

10. FUTURE FUNDING

Fisheries Renewal BC has negotiated a funding commitment with the Province of British Columbia for $14.92 million per year for the next two years beginning with the 2001/02 fiscal year. The Corporation continues to negotiate for a long-term source of revenue.

11. COMPARATIVE FIGURES

Certain balances of the preceding period have been reclassified to conform with the current year's financial statement presentation.

FROM LEFT TO RIGHT. – FRONT ROW: *Paul Kariya. Cindy Chang. Sharon Hong. Kerry Baird. Dawn Machin. Marion Town. Zo Ann Morten. Paul Loeppky. Leigh Martin-Boyd. Cathy Burkosky. Chris Cook Jr.. Joy Thorkelson. Ilona Beiks. Ron Faust*
BACK ROW: *Elaine Bedell. Anna Evans. Laurel Goodger. Sheila Keenan. John Holdstock. Tom Davis. Lynn Hunter. Jack Nichol. Angus MacKay*

Members of the Board of Directors, Fisheries Renewal BC, 2000/2001

Joy Thorkelson (F&A)*
PRINCE RUPERT – NORTHERN REPRESENTATIVE, UNITED FISHERMEN AND ALLIED WORKERS' UNION/CANADIAN AUTO WORKERS; T. BUCK SUZUKI ENVIRONMENTAL SOCIETY

Cathy Burkosky (P&P)*
PORT ALBERNI – COMMUNITY ECONOMIC ADJUSTMENT INITIATIVE COMMITTEE MEMBER; FORMER FISHER AND TROLL FLEET MANAGER

Chris Cook Jr. (C&C)*
PORT HARDY – PRESIDENT, NATIVE BROTHERHOOD OF BRITISH COLUMBIA; COMMERCIAL SALMON AND HERRING FISHER

Tom Davis (P&P)*
VICTORIA – SPORT TACKLE MANUFACTURER, RHYS DAVIS LTD.

Heather DuDoward (P&P)*
SKIDEGATE – MANAGER OF CLIENT SERVICES AND MEDIA RELATIONS, GWAII HAANAS NATIONAL PARK RESERVE AND HAIDA HERITAGE SITE; FORMER CO-ORDINATOR, COUNCIL OF THE HAIDA NATION FISHERIES PROGRAM.

Russ Hellberg (C&C) (P&P)*
PORT HARDY – MAYOR, PORT HARDY; BOARD MEMBER, FOREST ALLIANCE; PAST CHAIR, COASTAL COMMUNITIES NETWORK

John Holdstock (F&A)*
KELOWNA – PAST PRESIDENT, BC WILDLIFE FEDERATION

Lynn Hunter (F&A)*
VICTORIA – ENVIRONMENTAL CONSULTANT; FORMER MEMBER OF PARLIAMENT; FISHERIES AND AGRICULTURE SPECIALIST, DAVID SUZUKI FOUNDATION

Paul Loeppky (F&A)*
100 MILE HOUSE – FOUNDING MEMBER, LOWER BRIDGE CREEK WATERSHED STEWARDSHIP SOCIETY; ANGLER.

Dawn Machin (C&C)*
WESTBANK – FISHERIES BIOLOGIST, OKANAGAN NATION FISHERIES COMMISSION

ZoAnn Morten (C&C)*
NORTH VANCOUVER – DIRECTOR, PACIFIC STREAMKEEPERS FEDERATION; LONG-TIME SALMONID ENHANCEMENT VOLUNTEER

Jack Nichol (P&P)*
VANCOUVER – PAST PRESIDENT, UFAWU/CAW; ALTERNATE COMMISSIONER, PACIFIC SALMON COMMISSION 1985-1994

*COMMITTEES
(P&P) Member of Planning and Partnership Committee
(C&C) Member of Communications and Consultations Committee
(F&A) Member of Finance and Administration Committee

Staff

Paul Kariya	CHIEF EXECUTIVE OFFICER
Laurel Goodger	EXECUTIVE ASSISTANT
Ron Faust	CHIEF FINANCIAL OFFICER AND CORPORATE SECRETARY
Christine Meier	OFFICE MANAGER (ON LEAVE 2001)
Alison Holmes	OFFICE MANAGER
Sharon Hong	FINANCIAL ASSISTANT
Anna Evans	OFFICE ASSISTANT
Elaine Bedell	OFFICE ASSISTANT
Ilona Beiks	DIRECTOR OF COMMUNICATIONS
Sheila Keenan	COMMUNICATIONS OFFICER
Cindy Chang	PROGRAM OFFICER, ECONOMIC PROGRAMS
Angus Mackay	DIRECTOR, SALMONID RENEWAL PRORGAM – NORTH
Kerry Baird	PROGRAM OFFICER
Marion Town	DIRECTOR, SALMONID RENEWAL PROGRAM — SOUTH
Leigh Martin-Boyd	PROGRAM OFFICER

Glossary

BIODIVERSITY: variability among life forms and the ecological complexes in which they exist

CONSERVATION: managing fish and habitat to ensure sustainability and biodiversity

CREEL SURVEY: survey of recreational fishers to find how many fish they've caught (creel is a fisher's basket)

ENHANCEMENT: use of hatcheries, spawning channels, lake fertilization or habitat restoration to increase the survival of a fish species

EROSION: process that loosens or wears away surface soil and rock, particularly on river banks

ESCAPEMENT: number of fish that remain in population after harvesting

FISH HABITAT: fish spawning grounds and nursery, rearing, food supply and migration areas. It may be located in a stream or off channel

LARGE WOODY DEBRIS (LWD): pieces of dead wood (with at least a ten-centimetre diameter and a two-metre length) in a watercourse that provide cover for fish

OFF-CHANNEL POND: pond that connects to stream by a short channel

POPULATION OR STOCK: separate, although not necessarily geographically isolated, group of interbreeding individuals

REHABILITATION: returning a stream or other aquatic area to a healthy state

RESTORATION: process of bringing back fish and or fish habitat that used to exist but are not currently present

RIFFLE: shallow rapids with swift water flows

RIPARIAN AREA OR ZONE: area of land next to stream, river, lake or wetland that contains vegetation different from that in nearby upland areas

RIPARIAN PLANTING: planting trees and shrubs suited to environment next to stream, lake or wetland

ROOTWAD: tree's root mass

SALMONID: any fish belonging to Salmonidae family including salmon, trout, char, whitefish and grayling

SCOUR: "erosion" of streambed by swiftly moving water or by movement of debris

SMOLT: juvenile salmon trout migrating to the sea from freshwater habitat

STOCK: see "population"

STREAMSIDE: land and vegetation that is in contact with stream

WATERSHED: a catchment area for rain and snowmelt which drain via tributaries into one large river

WETLAND: swamp, marsh or similar area

WILD SALMON: salmon that are produced by natural spawning in fish habitat from parents that themselves spawned and grew in fish habitat

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